DIRECT ALARM SUPPLIES

A Hills Company

Hills® Reliance



Installation manual

HILLS RELIANCE

Hills Reliance Control Panel

Thank-you for choosing the Hills Reliance Control Panel!

The Hills Reliance security control panel from Hills Industries represents a new approach to security system design. Drawing on experience from the world market, Hills has developed the most flexible, durable, and user-friendly control ever seen in our industry. Featuring sophisticated software that allows up to 99 users to interface with 128 zones, 8 areas, and a host of integrated fire, access, verification, and input/output modules, all reported with the Contact I.D. formats. The modular design establishes a logical solution for ease of expansion. Up to 32 modules can be added to expand the capabilities of the Hills Reliance.

NZ Telepermit Notice

TELEPERMIT
This Hills Reliance 8 Alarm Panel may be connected to the Telecom Network
PTC 211 / 06 / 095
RN = 0.5

TELEPERMIT
This Hills Reliance 12 Alarm Panel may be connected to the Telecom Network
PTC 211 / 06 / 096
RN = 0.5

TELEPERMIT
This Hills Reliance 128 Alarm Panel may be connected to the Telecom Network
PTC 211 / 06 / 097
RN = 0.5

Warnings

The equipment should be installed by qualified SERVICE PERSONNEL only

The equipment should only be operated with an approved power adapter with insulated live pins

CAUTION – RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF BATTERIES ACCORDING TO THE INSTRUCTIONS. CONTACT YOUR INSTALLER FOR REPLACEMENT BATTERIES.

N4131 **When installed as directed, this product conforms to the standards set by Standards Australia on behalf of the Australian Communications Authority (ACA)**

Disclaimer

The content of this document has been prepared to the best of our knowledge, provided "as is" and is subject to change without notice. Hills Industries does not guarantee technical accuracy beyond the date of publishing. For the latest information please enquire about attending one of our Hills Reliance training courses.

Copyright Notice

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Installation Manual

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Compliance Notices

Information to the Installer - Changes and modifications not expressly approved by Hills can void the user's authority to operate the equipment.

Australia & New Zealand Compliances

This equipment has been tested and found to compliant with the ACA A-Tick and (NZ) Telepermit standards. These limits are designed to provide reasonable protection against interference in a residential installation.

Hills Reliance systems fitted with the 433 MHz wireless receiver module receives radio frequency energy from wireless transmitters and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the wireless transmitter units or receiver module to reduce interference.
- Increase the separation between the transmitting units and receiver.
- Connect the affected equipment and the panel receiver to separate power outlets, on different branch circuits.
- Consult the dealer or an experienced radio/TV technician for help.

A 230-240VAC mains power outlet (GPO) with protective earthing connection must be provided within reach of the supplied plug pack power lead and be easily accessible. Only licensed electrical workers should install new GPOs. GPO installation must comply with AS/NZS 3000:2000 and national or state electrical regulations. Connect this product to a compliant 611, Mode3 or switched 8P4C socket. A RJ11phone lead is required to connect this product to a compliant 611, Mode3 or switched 8P4C socket. A compliant RJ11 lead is supplied with this product.

Alarm dialing equipment must be able to seize the telephone line and place a call in an emergency situation. It must be able to do this even if other equipment (telephone, answering system, computer modem, etc.) already has the telephone line in use. To do so, alarm dialing equipment must be connected to a ACA (Aust.) or Telepermit (NZ) compliant Mode-3 socket that is electrically in series and ahead of all other telecommunication equipment attached to the same telephone line. In Australia, only ACA certified technicians are permitted to install or modify telephone sockets.

Security Installation License

Australia installers – In New South Wales and the ACT the installer must hold a Security Installer License to install this product.
New Zealand – All people involved in the selling, installation and servicing of security equipment must hold a Security Guards Licence. Refer to the NZ Government Justice Department for further updates.
Note: Other national/state regulations may also apply. Enquire at the place of purchase if specific installation regulations demand the Hills Reliance control panel installation requires a licensed installation technician.

Automatic Dialing Devices (Australia and New Zealand)

This equipment shall not be set to make automatic calls to the '000' (Aust) or the Telecom '111' (NZ) Emergency Service.

Series Connected Equipment (Australia & New Zealand)

The equipment may be set up to carry out test calls at pre-determined times. Such test calls will interrupt any other calls that may be set up on the line at the same time. The timing set for such test calls should be discussed with the installer.

The timing set for such test calls from this equipment may be subject to "drift". If this proves to be inconvenient and your calls are interrupted, then the problem of timing should be discussed with the equipment installer. The matter should NOT be reported as a fault to your telephone service provider faults service.

Automatic Re-attempts to the Same Number (New Zealand only)

Some parameters required for compliance with Telecom's Telepermit requirements are dependent on the equipment associated with this device. The associated equipment shall be set to operate within the following limits for compliance with Telecom's specification:

(a) There shall be no more than 10 call attempts to the same number within any 30 minute period for any single manual call initiation.

(b) The equipment shall go on-hook for a period of not less than 30 seconds between the end of one attempt and the beginning of the next attempt.

Automatic Call to Different Numbers (New Zealand only)

Some parameters required for compliance with Telecom's Telepermit requirements are dependent on the equipment associated with this device. In order to operate within the limits for compliance with Telecom Specifications, the associated equipment shall be set to ensure that automatic calls to different numbers are spaced such that there is no less than 5 seconds between the end of one attempt and the beginning of another.

Fault Clearance (New Zealand only)

In the event of any problem with this device, the telephone lead should be disconnected from the LINE connection at the rear of the unit. The user is then to arrange with the supplier of the device to make necessary repairs. Should the matter be reported to Telecom as a wiring fault and the fault is proven to this device, a call-out charge will be incurred.

Updated Features

There are new features on the Hills Reliance product, and some which have been changed from the previous version. These have the text "**new**" next to the relevant sections in this manual. A summary of key updates is presented below.

Feature Location	Description	Feature Location	Description
F5, 37, 38, 41, 44, 47, 50, 53, 56	Account Codes – expanded for future use	F33	Auto Disarm Time – added
F16, 39, 42, 45, 48, 51, 54, 57	Area Options – added Late To Close, Auto-Arm in Partial, Disable Bypass For Force Arm Zones	F36	Days of the Week for Auto-Arm – added Retry Timer
F17, 40, 43, 46, 49, 52, 55, 58	Entry / Exit Timers – expanded for future use	F68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100, 102, 104, 106	Configuration Groups – added Zone Activity Monitor, EOL Defeat, REX event, DOTL and Forced Door events
F18, 20, 59, 61, 63, 65, 119, 121, 123, 125, 127, 129, 131, 133, 135, 137	Zone Configuration Group – added Group 0 for Zone Disabled		
F22	System Options – added Two Wire Smoke, Zone Inactivity Monitor, Steady/Evac Siren	F119 - 138	Zones 49-128 – added
F22	Disable hardwire zones req power cycle	F155	Days of the Week for Auto Disarm – added
F25	System Timers – added Chime Option, Zone Inactivity Monitor	F162	EOL Resistor Value Select – added
F27	Auxiliary Output – changed on Reliance 8		
F28 - 31	Auxiliary Output Logic – enhanced		

Sales & Distribution

DIRECT ALARM SUPPLIES

For Service / Technical Support call
(02) 9717 5222 or 1800 252 213

SA
Torrensville:(08) 8150 9400

NSW
Granville: (02) 9897 7722
Rosebery: (02) 9698 9698
Chatswood: (02) 8467 1467

VIC
Rowville: (03) 9755 6922
Coburg: (03) 9383 2066

WA
Balcatta: (08) 9241 3100

ACT
Fyshwick: (02) 6280 9630

QLD
Bowen Hills: (07) 3252 5512
Molendinar: (07) 5597 7203

TAS
Derwent Park: (03) 6272 0211

Hills Electronic Security New Zealand

Auckland
Penrose: (09) 525 8007

Christchurch
Sydenham: (03) 374 6277

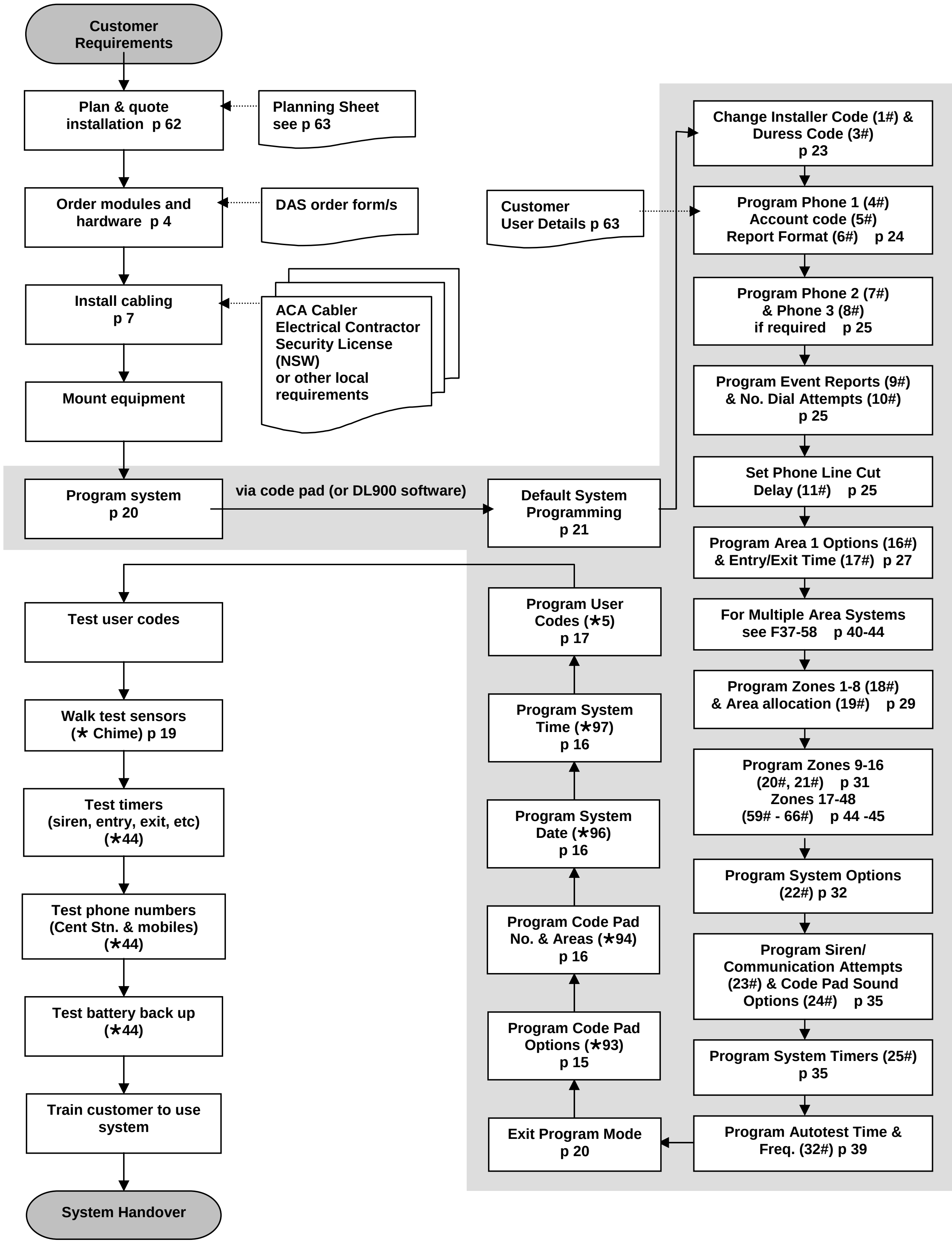
Wellington
Lower Hutt: (04) 939 9355

Ordering Information

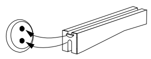
Hills Reliance System Modules & Equipment		
Part #	**Description**	**DAS Code**
NX-8-v2-HILLS	Hills Reliance 128 Control Panel	S4133
NX-6-v2-HILLS	Hills Reliance 12 Control Panel	S4142
NX-4-v2-HILLS	Hills Reliance 8 Control Panel	S4697
NX-1508-HILLS	Vertex 8 Zone LED Code Pad	S4158
NX-1516-HILLS	Vertex 16 Zone LED Code Pad	S4157
NX-108-HILLS	8 Zone LED Code Pad	S4127
NX-116-HILLS	16 Zone LED Code Pad	S4132
NX-124-HILLS	24 Zone LED Code Pad	S4131
NX-148-HILLS	Alphanumeric LCD Code Pad	S4145
NX-1448-HILLS	Icon LCD Code Pad	S2284
VN01	VoiceNav Code Pad	S1794A
NX-216E	16 Zone Expander Module	S4387
NX-507E	7 Relay Expander Module	S4164
NX-508E	8 Output Expander Module	S4128
NX-408EI	8 Zone Wireless Expansion Module	S4135
NX-416EI	16 Zone Wireless Expansion Module	S4134
NX-448EI	48 Zone Wireless Expansion Module	S4136
NX-1248	EchoStream 48 Zone Wireless Receiver	S1429AA
NX-320E	Smart Power Supply and Bus Extender	S4137
NX-536E	DTMF Communicator Module (only for Reliance)	S1204A
-	DTMF Monitor Module (for commissioning & testing)	S3079
NX-583	STU Interface	S4143
NX-584E	RS232 Serial Interface Automation	S4703
NX-586E	Direct Connect Lead	S4714
NX-588E	USB Flash Programming Lead	S1221A
60-707-43-EUR	ITI 2 Button Keyfob Transmitter	S5735
60-659-43-EUR	ITI 4 Button Keyfob Transmitter	S5753
60-705-43-ENG	ITI Pendant Panic Transmitter	S5744
DL900	NX/Hills Reliance Downloader Software	-
NX-1701E	Proximity Card Reader	S1845
NX-002	Metal Box Small (for Hills Reliance 8)	S4146
NX-003	Metal Box Large (for Hills Reliance 12 and 128)	S4700

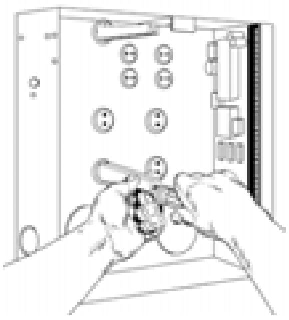
Installation & Programming Flowchart

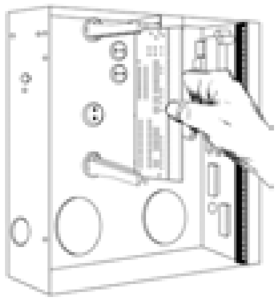
**Note – This diagram is a guide for basic system programming only.
Configuration depends upon customer requirements**



Board Installation







The metal enclosure should be installed with the door opening from the top to bottom. It should be installed away from damp areas (e.g. bathrooms, kitchens), away from sources of heat, dust or interference (e.g. air conditioners, washing machines, dryers, refrigerators) and away from external walls.

Inside the enclosure there are four slots for board insertion, two on the top and two on the bottom of the enclosure. These allow the PC board to be positioned vertically as shown in the diagram. When you slide the board between the grooves of the slots, make sure the terminal strip is toward the front opening (toward you) to allow for the wire connections.

Inside the enclosure several 2-holed insertion points have been constructed. This allows for either vertical or horizontal placement of the modules. Notice that each insertion point has two sizes of holes - a larger hole and a smaller hole.

Diagram 1: The black plastic PCB guides are grooved on one edge where the PC board will be seated. The end with the half-moon protrusion fits into the larger hole. The smaller hole is for the screw.

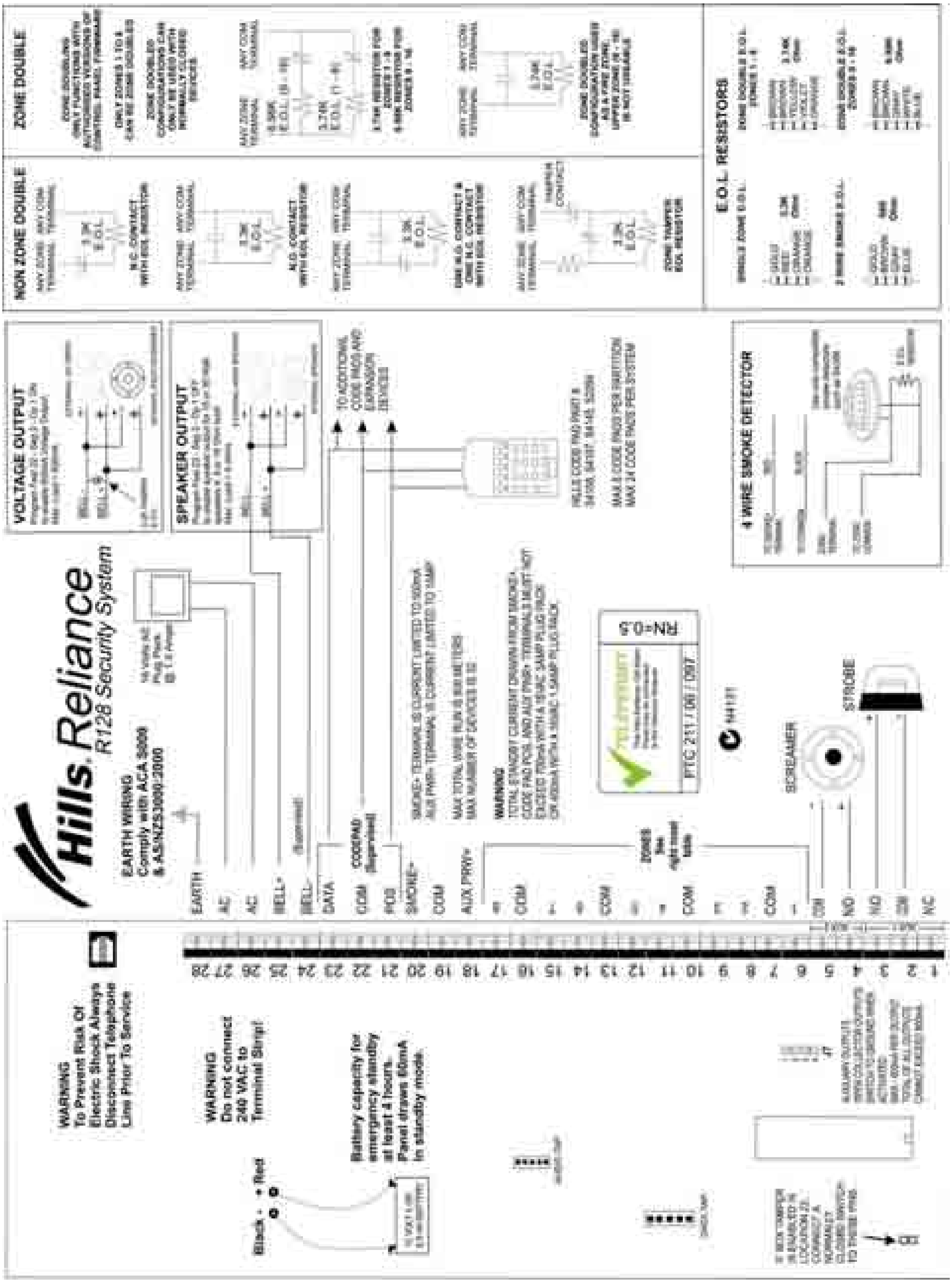
Diagram 2: Place the first black plastic PCB guide in the top insertion point, grooved edge downward. The half-moon protrusion will be in the large hole. It does not require force to insert. Insert one of the provided screw into the smaller hole (from inside the enclosure) to secure it in place. A screwdriver should reach through the notch that runs the length of the guide to tighten the screw. The second PBC guide should be positioned opposite the first (grooved edge up) and placed in the lower insertion point, using the same procedures described above. Once mounted, screw it in securely.

Diagram 3: The PC Board should slide freely in the grooves of both guides.

Control Panel Comparison

	R8	R12	R128
Independent number of zones	8	12	16
Expandable to a maximum number of zones (a combination of hardwired and/or wireless)	8	16	128
Anti-tamper supervision of all zones (hardwired and wireless)	Yes	Yes	Yes
Full supervision of all expansion module and code pads	Yes	Yes	Yes
Individual areas/partitions	1	2	8
Total number of user PIN codes (4 digit)	8	40	99
Maximum number of code pads ** Max 8 VoiceNav code pads if using intercom features*	8	16	24
Code pad tampers	Yes	Yes	Yes
Uni Arming (single button arming for full or partial mode)	Yes	Yes	Yes
Home mode/Partial mode arming	Yes	Yes	Yes
Automatic arming (and auto partial mode arming)	Yes	Yes	Yes
Re-exit feature	Yes	Yes	Yes
Real-time event history (maximum events)	185	185	185
Phone line monitor	Yes	Yes	Yes
Fire alarm verification	Yes	Yes	Yes
NX-1701EAU Keyless Door Entry (maximum modules)	1	2	4

Hills Reliance 128 Wiring Diagram

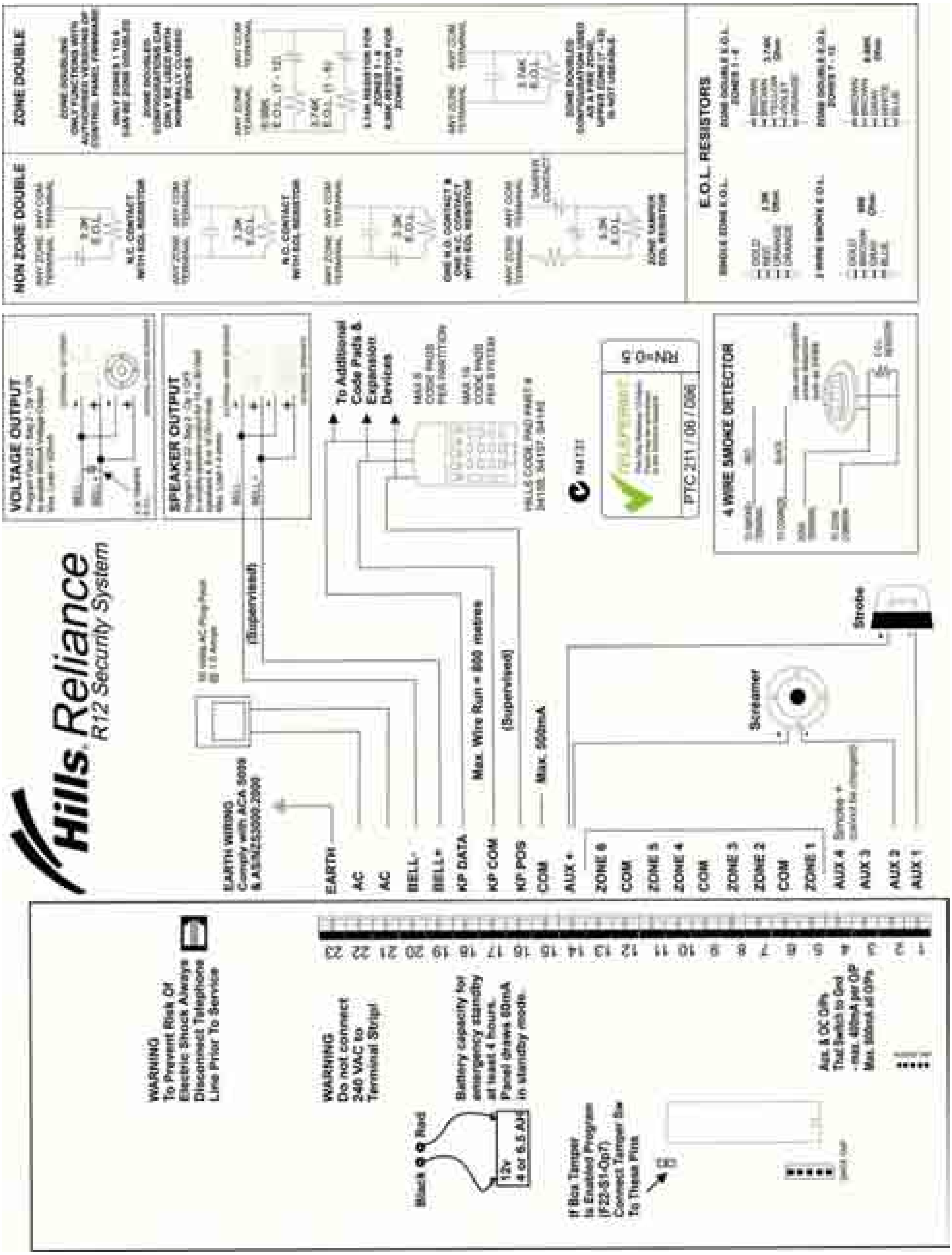


Hills Reliance 128 Terminal Descriptions

Terminal	Description
EARTH	Earth / Ground. To comply with ACA S009 & AS/NZS3000:2000. Connect to the 16.5V AC plug pack earth wire.
AC	AC input. Connect a 16.5V, 25 VA, 40 VA or 50 VA approved transformer.
BELL + & BELL -	Built in siren driver, if used as a siren output (default), the speaker rating should be 15 Watt at 8 or 16 Ohm, or 30/40 Watt at 4, 8, or 16 Ohm, 250mA maximum load. If voltage output is selected in Feature 22 - Segment 2 - Option 1, this output becomes voltage output, 12 VDC, 1 Amp maximum load. ***Note:*** *A 3.3KΩ resistor may be required across the bell terminals when a 12 VDC siren is used. If no resistor is used, you may experience voltage leakage into the siren that will cause these devices to output a small signal.*
KP DATA	Connect the to the KP data terminal on the code pads and the expanders (usually blue or green wire). Maximum total wire run is 800 metres using 14/020 cable. These numbers are for one code pad at the end of the wire. When connecting more than one code pad to the system bus wire, a higher gauge wire will be required, or there will be a reduction in maximum wire distance. Maximum 32 devices.
KP COM	Connect to the Common terminal on the code pads and the expanders (usually the black wire).
KP POS	Connect to the Positive terminal on the code pads and the expanders (usually the red wire). The KP POS and AUX PWR + terminals are limited to 1 Amp total current when added together.
SMOKE+	Smoke detector power 12VDC, 500mA maximum.
COM	Connect negative wire of powered devices such as motion detectors and smoke detectors.
AUX PWR+	Connect positive wire of all powered devices except smoke detectors and code pads. This terminal and KP POS are limited to 1 Amp total current when added together.
ZONE 8	Connect to one side of zone 8 loop. Connect the other side to a COM terminal. Open or short causes alarm. Zone 8 may be used for a two-wire smoke detector using a 680Ω E.O.L. resistor. See Feature 22.
COM	Common (-) terminal for zones 7 & 8. (See the wiring diagram for examples)
ZONE 7 - ZONE 1	Connect to one side of zone loop. Connect the other side to a COM terminal. Open or short causes alarm. Only zone 8 can be a two-wire smoke zone. (See the wiring diagram for examples)
AUX RELAY OUT 1-2	Relays one and two switch a 12 volts output on their N/C and N/O terminals. This means that you connect the positive lead of your device to these terminals, and connect the negative lead to a COM terminal. Ensure your device does not exceed the ratings of these relays, max 400 mA per output, max 800 mA total output.
AUX OUT 3-4	Auxiliary outputs 3 and 4 (in addition to 1 & 2) are located on a pin header J7, see wiring diagram for details.
Battery Leads	Connect black (-) and red (+) leads to a 12VDC sealed lead acid rechargeable battery. Do not connect to a dry cell battery.

Warning: Total standby current drawn from SMOKE +, KP POS and AUX PWR +, must not exceed 700 mA with 16 VAC 3 Amp Plug Pack or 400 mA with 16 VAC 1.5 Amp Plug Pack.

Hills Reliance 12 Wiring Diagram

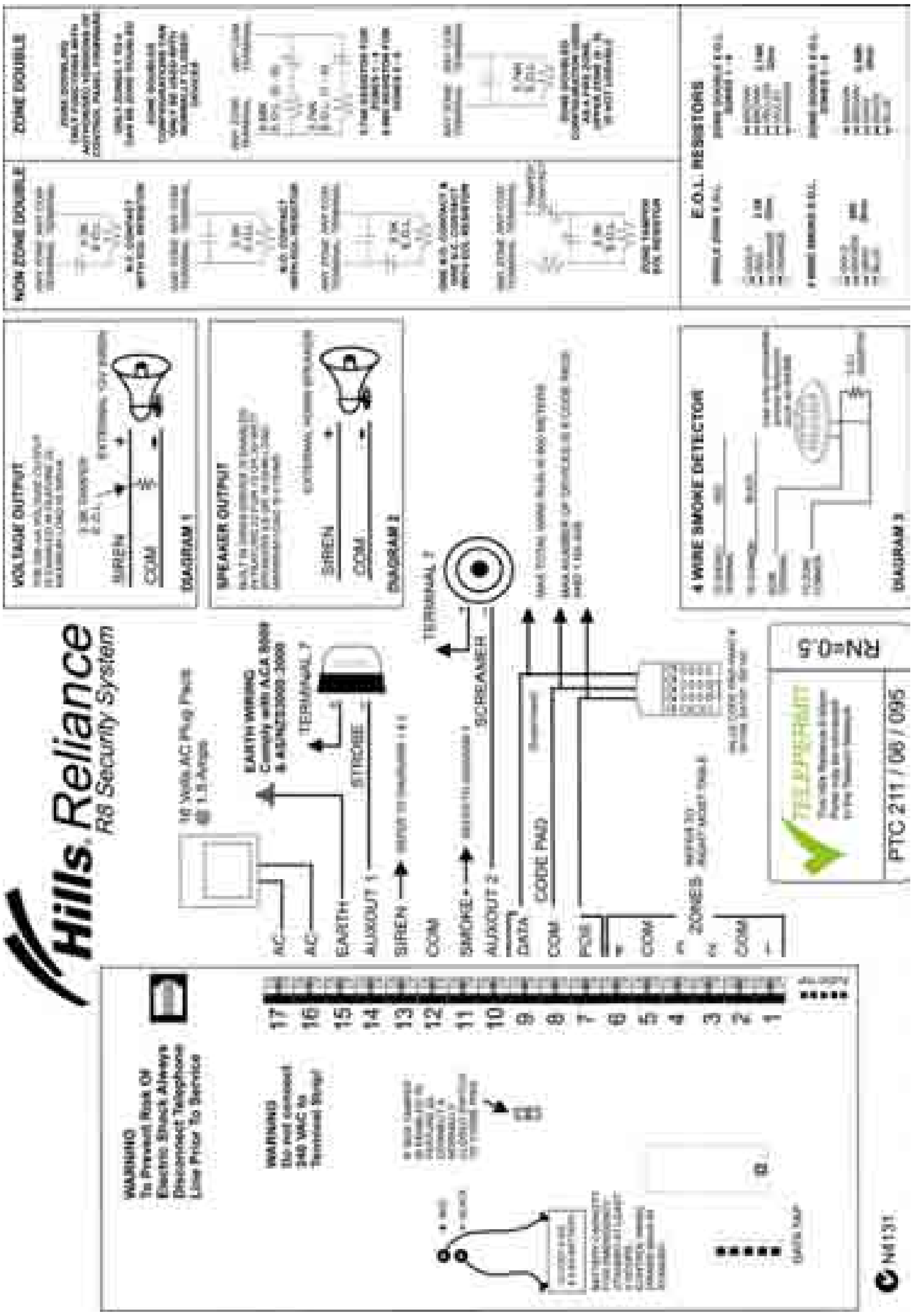


Hills Reliance 12 Terminal Descriptions

Terminal	Description
EARTH	Earth / Ground. To comply with ACA S009 & AS/NZS3000:2000. Connect to the 16.5V AC plug pack earth wire.
AC	AC input. Connect a 16.5V, 25 VA, 40 VA or 50 VA approved transformer.
BELL + & BELL -	Built in siren driver, if used as a siren output (default), the speaker rating should be 15 Watt at 8 or 16 Ohm, or 30/40 Watt at 4, 8, or 16 Ohm, 250mA maximum load. If voltage output is selected in Feature 22 - Segment 2 - Option 1, this output becomes voltage output, 12 VDC, 1 Amp maximum load. ***Note:*** *A 3.3KΩ resistor may be required across the bell terminals when a 12 VDC siren is used. If no resistor is used, you may experience voltage leakage into the siren that will cause these devices to output a small signal.*
KP DATA	Connect the to the KP data terminal on the code pads and the expanders (usually blue or green wire). Maximum total wire run is 800 metres using 14/020 cable. These numbers are for one code pad at the end of the wire. When connecting more than one code pad to the system bus wire, a higher gauge wire will be required, or there will be a reduction in maximum wire distance. Maximum 16 devices.
KP COM	Connect to the Common terminal on the code pads and the expanders (usually the black wire).
KP POS	Connect to the Positive terminal on the code pads and the expanders (usually the red wire). The KP POS and AUX PWR + terminals are limited to 1 Amp total current when added together.
COM	Connect negative wire of powered devices such as motion detectors and smoke detectors.
AUX PWR+	Connect positive wire of all powered devices except smoke detectors and code pads. This terminal and KP POS are limited to 1 Amp total current when added together.
ZONE 6	Connect to one side of zone 6 loop. Connect the other side to a COM terminal. Open or short causes alarm.
COM	Common (-) terminal for zones 5 & 6. (See the wiring diagram for examples)
ZONE 5 - ZONE 1	Connect to one side of zone loop. Connect the other side to a COM terminal. Open or short causes alarm. Only zone 7 can be a two-wire smoke zone. (See the wiring diagram for examples)
AUX OUT 4 (or Zone 7 /Smoke +)	Aux 4 defaults to 12VDC smoke power for a four-wire smoke detector. Alternatively this output can be programmed in Feature 22 as Zone 7 two-wire smoke detector. Use a 680Ω E.O.L. resistor with the two-wire smoke detector. Current is limited to 250mA when output is negative and 250 microamps maximum when output is positive. ***Note:*** *The 2-wire smoke loop cannot be enabled if Zone Doubling is used.*
AUX OUT 1-3	Connect negative lead of low current device (e.g. relay, LED [install 1K resistor in series with LED], etc). Connect positive lead of device to AUX PWR +. Current is limited to 250mA when output is negative and 250 microamps maximum when output is positive.
Battery Leads	Connect black (-) and red (+) leads to a 12VDC sealed lead acid rechargeable battery. Do not connect to a dry cell battery.

Warning: Total standby current drawn from SMOKE +, KP POS and AUX PWR +, must not exceed 700 mA with 16 VAC 3 Amp Plug Pack or 400 mA with 16 VAC 1.5 Amp Plug Pack.

Hills Reliance 8 Wiring Diagram



Hills Reliance 8 Terminal Descriptions

Terminal	Description
AC	AC input. Connect a 16.5V 1.5A approved plug pack.
EARTH	Earth / Ground. To comply with ACA S009 & AS/NZS3000:2000. Connect to the 16.5V AC plug pack earth wire.
AUX OUT 1	Auxiliary Output Terminal, normally used to connect the negative lead of the strobe. The positive lead of the strobe can be connected to any of the positive terminals e.g. KP POS. Current is limited to 250mA when output is negative and 250 microamps maximum when output is positive.
SIREN	Built in siren driver, if used as a siren output (default), the speaker rating should be 15 Watt at 8 or 16 Ohm, or 30/40 Watt at 4, 8, or 16 Ohm, 250mA maximum load. If voltage output is selected in Feature 22 - Segment 2 - Option 1, this output becomes voltage output, 12 VDC, 500mA maximum load. ***Note:*** *A 3.3KΩ resistor may be required across the bell terminals when a 12 VDC siren is used. If no resistor is used, you may experience voltage leakage into the siren that will cause these devices to output a small signal.*
COM	Common (-) Terminal
SMOKE+	Smoke detector power 12VDC, 100mA maximum. **At default output is 0V**, to enable 12V set F27 - Seg 3 - Op 6 (invert output) to **off**. See Feature 27.
AUX OUT 2	Auxiliary Output Terminal, normally used to connect the negative lead of the screamer. The positive lead of the screamer can be connected to any of the positive terminals e.g. KP POS. Current is limited to 250mA when output is negative and 250 microamps maximum when output is positive.
KP DATA	Connect the to the KP data terminal on the code pads and the expanders (usually blue or green wire). Maximum total wire run is 800 metres using 14/020 cable. These numbers are for one code pad at the end of the wire. When connecting more than one code pad to the system bus wire, a higher gauge wire will be required, or there will be a reduction in maximum wire distance. Maximum 8 devices.
KP COM	Connect to the Common terminal on the code pads and the expanders (usually the black wire).
KP POS	Connect to the Positive terminal on the code pads and the expanders (usually the red wire). The KP POS and AUX PWR + terminals are limited to 1 Amp total current when added together.
COM	Connect negative wire of powered devices such as motion detectors and smoke detectors.
ZONE 4	Connect to one side of zone 4 loop. Connect the other side to a COM terminal. Open or short causes alarm.
COM	Common (-) terminal for zones 5 & 6. (See the wiring diagram for examples)
ZONE 3 - ZONE 1	Connect to one side of zone loop. Connect the other side to a COM terminal. Open or short causes alarm.
Battery Leads	Connect black (-) and red (+) leads to a 12VDC sealed lead acid rechargeable battery. Do not connect to a dry cell battery.

Warning: Total standby current drawn from SMOKE +, KP POS and AUX PWR +, must not exceed 700 mA with 16 VAC 3 Amp Plug Pack or 400 mA with 16 VAC 1.5 Amp Plug Pack.

Main Options

Areas

The Hills Reliance 128 can have up to a maximum of eight separate systems (areas) with distinct reporting codes, user codes, and operating options for each system (see Features 16-21 and 37-58). The Hills Reliance 12 has up to two areas, and the Hills Reliance 8 has one area.

Arm / Disarm Codes

The Hills Reliance 128 can have 99 four-digit codes or 66 six-digit codes to arm/disarm the control. All codes must have the same number of digits. User codes are programmed and viewed from the code pad functions [*] 5 and [*] 6. The factory default for user 1 is **[1]**-**[2]**-**[3]**-**[4]** when using a 4-digit code, or **[1]**-**[2]**-**[3]**-**[4]**-**[5]**-**[6]** for a 6-digit code. This code can then be used to enter the new arm/disarm codes (see Feature 0). The Hills Reliance 12 can have up to 40 users, the Hills Reliance 8 up to 8 users.

Auto-Arm in Partial

The Hills Reliance can be armed automatically in the partial mode. This option can only be used for area one. If Auto-Arm in Partial is enabled, area one cannot have full mode Auto-Arming selected. (See Feature 22)

Automatic Arming

If programmed, the Hills Reliance will Auto-Arm at a specified time. At this time, the code pad will beep for 50 seconds before the panel arms. The auto-arming process can be stopped by a valid code entry during Exit Time. The Auto-Arming of an area can be programmed to be silent. If closing reports are sent, the user code will be 97. (See Features 16, and 33-36)

Auxiliary Outputs

The Hills Reliance 128 has two (2) programmable relay outputs and two (2) programmable open collector outputs that can be used to activate a strobe and two internal sirens. (See the terminal description Features 26-29). The Hills Reliance 12 has 4 programmable open collector outputs, and the Hills Reliance 8 has two.

Auxiliary Power Over Current

The Hills Reliance will illuminate the ‘Service’ LED on the code pad whenever too much current is drawn from any device powered by the system. This condition can be reported to the central station. (See Features 9 and 22)

Box Tamper

The Hills Reliance has an input for a normally closed tamper switch (see wiring diagrams on p7, p9, p11). The Box Tamper can be programmed to report and/or sound the siren and/or the Code Pad. These terminals can be enabled or disabled in programming. (See Features 22 and 23)

Code Pad Start Zone

The Hills Reliance LED Code Pads can be programmed with a starting zone from 1 to 64. The starting zone programmed into the LED Code Pad via function **[*][9][2]** will tie the system zone to zone one (1) of the Code Pad. I.e. If you wish to start displaying zone 25 as the zone one (1) on a LED Code Pad, program a 25 as the start zone into the Code Pad that will function in this manner. When system zone 25 is faulted, zone LED one (1) will illuminate on the programmed Code Pads. Zone bypasses will be tied to the Code Pad LED number; however reporting will follow the system zone number.

Configuration Group

The Hills Reliance has 20 programmable and 10 fixed zone configuration groups (i.e. zone types) that determine how each zone will function and report. The first 20 groups can be reprogrammed.

Dual End of Line

All Hills Reliance zones can be enabled for tamper monitoring if the Dual End of Line option is enabled. Zone Doubling cannot be used if the option is enabled. (See Feature 22)

Dynamic Battery Test

The Hills Reliance can be programmed to perform a dynamic battery test to verify the condition of the battery for a selected duration the first time the panel is armed or disarmed every day. The Hills Reliance can also be programmed to perform a missing battery test every 12 seconds. (See Features 22 and 25)

Exit Error

If enabled, the Hills Reliance will send an 'Exit Error Report' if an entry/exit zone is faulted at the instant the exit delay expires. This report will be sent along with the user number that armed the system, if the panel is not disarmed before the entry delay expires. The alarm report will also be sent. Even if this option is not enabled, the siren will sound if any entry/exit zone is faulted at the instant the exit delay expires. (See Feature 9 and 16)

Expander Trouble

The Hills Reliance will report expander trouble to the central station if enabled. This condition will illuminate the 'Service' LED on the code pad even if not reported. Note: The code pads are considered expanders. The number of the expansion devices reported can be found in Appendix 3. (See also Feature 9 and 22)

Fire Alarm Verification

When enabled, the Hills Reliance will verify a fire alarm by waiting for a second trip on a smoke detector within a specified time before creating an alarm (see Feature 25). To interrupt the smoke detector power (when in the disarmed state) each time the [*] 7 keys are pressed, the corresponding LED(s) for zones designated as 'Fire' must be on steady for alarm or blinking for trouble. When the 'Fire Alarm Verification' option is enabled, a smoke detector will be powered down and reset automatically after the first trip, waiting for a second trip within a specified time before creating an alarm. The communicator will delay for a specified time before reporting the alarm, if a valid code is entered, the report will be aborted, and the smoke alarm verification option will be reset if enabled. If no valid code is entered the alarm report will be reported to the base station. (See Zone Configuration Group Table and Feature 25)

Group Bypass

A designated group of zones can be programmed to bypass by pressing **[Bypass]**-**[0]**-**[0]**-**[Bypass]** prior to arming. (See Zone Configuration Group Table)

Internal Event Log

Up to 185 events can be stored in memory along with the date and time of the event. These events can later be viewed through downloading or the LCD code pad. All reportable events report to the log.

Number of Calls and Rings to Answer

The Hills Reliance can count the number of calls and rings that must be met for automatic download answering. (See Feature 13)

On Board Zone Disable

The zones on the main Hills Reliance control panel can be disabled in order to have a completely wireless alarm system. (See Feature 22)

Partial Mode

Partial mode allows system owners to arm only designated partial zones (e.g. downstairs, front doors, garage), bypassing all non-partial zones (e.g. upstairs bedroom). Partial mode encourages system owners to use their alarm system more frequently when the premise is occupied. When armed in the 'Partial' mode, the opening of any zones designated as 'Partial Mode zone' will initiate the code pad sounder and start the Partial Mode entry delay before creating an alarm. All other zones will function as normal. (See Zone configuration Group Table and Features 16 and 25)

Siren Supervision

The Hills Reliance has a siren supervision circuit (Bell + and Bell -) that will constantly monitor the siren on the Hills Reliance and can be programmed to report if the wires are cut. (See Feature 22)

Telephone Line Monitor

The Hills Reliance 128 and Hills Reliance 12 have a telephone line monitor that monitors the voltage and current of the telephone line to detect a cut phone line. This condition can also be reported to the central station **after** the line is restored. Not available on the Hills Reliance 8.

Twin Trip

This option requires two or more trips on a zone or zones programmed as 'Twin Trip' within a specified time before reporting an alarm. During the time between trips, the Hills Reliance can be programmed to sound the code pad and/or the siren. The Hills Reliance will also see an alarm activation if any Twin Trip zone that is continuously faulted for longer than 10 seconds. (See Zone configuration Group Table and Features 22, 24, and 25)

Programming The LED Code Pads

This section describes how to program the address and area of each code pad as well as the options that are available. The code pad address allows the panel to monitor and supervise the connected code pads and report code pad communication faults.

The factory default for the Master code is **[1]**-**[2]**-**[3]**-**[4]** when using a 4-digit code or **[1]**-**[2]**-**[3]**-**[4]**-**[5]**-**[6]** for a 6-digit code. The factory default for the 'Go To Program' code is **[9]**-**[7]**-**[1]**-**[3]** for a 4-digit code or **[9]**-**[7]**-**[1]**-**[3]**-**[0]**-**[0]** for a 6-digit code.

1. Setting The LED Code Pad Starting Zone - Function [9] [2]

Step 1	Your system must be in the Disarmed state to program the code pad settings
Step 2	Press the **[✱]**-**[9]**-**[2]** keys
Step 3	Enter the **[Program Code]**
Step 4	Enter the **Starting** zone number from 1 to 128. Note that older code pads only support up to 48 zones (i.e. non "E" versions"). Keep this in mind when expanding a site by replacing the panel – some code pads may also need replacing. On sites with >48 zones it is recommended to use an LCD code pad.
Step 5	Press **[✱]** to save changes and exit this function

2. Setting The LED Code Pad Options - Function [9] [3]

Step 1	Your system must be in the disarmed state to program the code pad settings
Step 2	Press the **[✱]**-**[9]**-**[3]** keys
Step 3	Enter the **[Program Code]**. The 'Service' LED will flash LEDs 1-8 can now be toggled on/off to enable/disable the functions listed in the table below:

LED	Code Pad Option Enabled
1	**Enable Code Pad tamper switch**
2	**Enable Silent Code Pad option**
3	**Enable Ding Dong sound for Chime** – If off, chime will be a single tone.
4	**Enable Key-press Silence option** (silences the pulsing code pad sounder for 5 seconds when a key is pressed)
5	**Enable Armed Status Suppression** (faulted or bypassed zones will not display on code pad when system armed)
6	**Enable Panic, Fire, Medical Beep-tone** (will sound a short beep to verify that the key-press was accepted)
7	**Suppresses the 'Service' LED** (will not allow the 'Service' LED to illuminate for any reason. If there is a system trouble, pressing **[✱]**-**[2]** will still show the service menu.)
8	**Enable multi-area viewing** (enables temporary viewing of all areas by pressing **[✱]**-**[1]**-**[Area Number]**)

Step 4	After enabling/disabling the desired functions press **[ρ]** to save changes and exit this function.

3. Setting The LED Code Pad Number And Area Options - Function [9] [4]

Step 1	Your system must be in the disarmed state to program the code pad settings
Step 2	Press the **[✱]**-**[9]**-**[4]** key
Step 3	Enter the **[Program Code]** – The 'Service' LED will flash
Step 4	Enter the code pad number **[1-8]**
Step 5	Press **[✱]** - The 'Instant' LED will illuminate steady and the 'Service' LED will remain flashing
Step 6	Enter the **[Area Number]** for the code pad (the code pad will automatically exit this mode at this time)

4. Set Elapsed Hours Since Last Auto Test - Function [9] [5]

Step 1	Your system must be in the disarmed state to program the code pad settings
Step 2	Press the **[✱]**-**[9]**-**[5]** keys
Step 3	Enter the **[Program Code]** – The 'Service' LED will flash
Step 4	Enter **[100's digit]** - **[10's digit]** - **[1's digit]** for the elapsed hours ***Example:*** *if you have programmed the Auto-Test intervals to report every 72 hours, the value in this function will determine the first time the auto test report is made, so to have the first test occur in 12 hours and then every 72 hours, simply subtract the 12 from 72 which gives you a value of 60 hours. The value in this function would be* ***[6][0]****.*
Step 5	Press the **[#]** key to exit this function

5. Set System Date - Function [9] [6]

Step 1	Press the **[✱]**-**[9]**-**[6]** keys
Step 2	Enter the **[Master Code]**
Step 3	Enter the 'Day of Week Code': **1 = Sunday** **3 = Tuesday** **5 = Thursday** **7 = Saturday** **2 = Monday** **4 = Wednesday** **6 = Friday**
Step 4	Enter the 'Month Code' – this must be two (2) digits: **01 = January** **05 = May** **09 = September** **02 = February** **06 = June** **10 = October** **03 = March** **07 = July** **11 = November** **04 = April** **08 = August** **12 = December**
Step 5	Enter the 'Day Code' – this must always be two (2) digits. ***Example:*** *The 5th would be entered as* ***[0][5]***
Step 6	Enter the last two digits of the 'Year Code'. *Example*: *For 2006 enter* ***[0][6]****.*

6. Setting The System Clock - Function [9] [7]

Step 1	Press the **[✱]**-**[9]**-**[7]** keys.
Step 2	Enter the **[Master Code]**
Step 3	Enter the 'Hour Code', which must be two (2) digits. Note: The clock is a 24-hour clock. ***Example:*** *Enter 12:00 am as* ***[0]****-****[0]****, 7.00 AM as* ***[0]****-****[7]****, and 5:00 PM as* ***[1]****-****[7]****.*
Step 4	Enter the 'Minutes Code', which must be two (2) digits. ***Example*****:** *7 minutes after the hour would be entered* ***[0] [7]****.*

7. Service Menu - Function [2]

The service light will be "on" if the security system requires service. If the service LED is "on", press the [ρ] key followed by the **[2]** key to determine the service condition. One or more zone LEDs will illuminate indicating what service(s) is required. Call your service provider immediately for these problems. Below is a listing of what each LED means in a service condition:

<table>
<tr><th>LED</th><th>Problem</th></tr>
<tr><td>1</td><td>SYSTEM FAULT – Press the [1] key. The zone LED(s) illuminated corresponds to the system fault(s) below:
<table>
<tr><th>LED</th><th>System Fault</th><th>LED</th><th>System Fault</th></tr>
<tr><td>1</td><td>Over Current Fault</td><td>5</td><td>Expander Low Battery</td></tr>
<tr><td>2</td><td>Siren Trouble</td><td>6</td><td>Expander Box Tamper</td></tr>
<tr><td>3</td><td>Box Tamper</td><td>7</td><td>Expander Trouble</td></tr>
<tr><td>4</td><td>Expander Power</td><td>8</td><td>Reserved</td></tr>
</table>
Note: Faults 1 & 2 are global in nature and will affect all areas of a multi-area system.
Press the [#] key to return to the 1 of 8 service LEDs.</td></tr>
<tr><td>2</td><td>ZONE TAMPER – Press the [2] key and the zone LED(s) will illuminate showing the zone(s) that are tampered. Press the [#] key to return to the 1 of 8 service LEDs.</td></tr>
<tr><td>3</td><td>ZONE LOW BATTERY – Press the [3] key. The zone LED(s) will illuminate showing which zone(s) has a low battery. This only applies to wireless zones. Press the [#] key to return to the 1 of 8 service LEDs.</td></tr>
<tr><td>4</td><td>ZONE LOSS OF SUPERVISION – Press the [4] key and the zone LED(s) will illuminate showing which zone(s) has loss of supervision. This only applies to wireless zones. Press [#] key to return to the 1 of 8 service LEDs.</td></tr>
<tr><td>5</td><td>ZONE TROUBLE – Press the [5] key and the zone LED(s) will illuminate showing which zone(s) has a trouble condition. Press the [#] key to return to the 1 of 8 service LEDs.</td></tr>
<tr><td>6</td><td>TELEPHONE LINE TROUBLE/LINE CUT – This light will illuminate when the panel senses loss of phone line.</td></tr>
<tr><td>7</td><td>FAILURE TO COMMUNICATE – This LED illuminates when there is a failure to communicate between your system and the central station. Note: This fault is global in nature affecting all areas of a multi-area system.</td></tr>
<tr><td>8</td><td>LOSS OF SYSTEM TIME – This LED illuminates when there has been a loss of power and your system clock needs to be reset. See steps 5 and 6 above to program system date and time.</td></tr>
</table>

To exit the Service LED Mode - press the **[#]** key.

8. Changing User Codes - Function [5]

Step 1	Your system must be in the disarmed state to change user codes.
Step 2	Press the **[✱]**-**[5]** keys
Step 3	Enter a **[Master Arm/Disarm Code]** ***Note:*** *Multi area systems: A user changing another user's code must have access to all or more areas than the user being changed.*
Step 4	The *ready light* will flash
Step 5	Enter the 2 digit 'user number' (always enter 2 digit such as **[0]**-**[3]** for user 3)
Step 6	Enter the new four (4) or six (6) digit 'user code'. ***Note:*** *To delete a user code, enter* ***[Chime]-[Chime]-[Chime]-[Chime]*** *for a 4-digit code, or* ***[Chime]-[Chime]-[Chime]-[Chime]-[Chime]-[Chime]*** *for a 6-digit code.*
Step 7	The *ready light* will flash indicating you are back at Step 5 above. If the code is rejected, the sounder beeps 3 times.
Step 8	If another 'user code' needs to be programmed, return to Step 5
Step 9	Press the **[#]** key while the *ready light* is flashing to exit the user code programming mode.

9. Assigning User Code Authority Levels - Function [6]

Step 1	Assign user codes before assigning authority levels
Step 2	Press the **[✱]-[6]** key
Step 3	Enter a **[Master Arm/Disarm Code]** ***Note:*** *a user changing the authority of another user can only add or remove area authorization for areas to which they have access.*
Step 4	The *ready light* will flash
Step 5	Enter the 2 digit 'user number' to be assigned authority. (The *ready light* is constant and the *partial light* will flash).
Step 6	Lights illuminated indicate the authority levels assigned to this code. You may toggle (turn on/off) the authority level by pressing the number for that authority level. An explanation of the lights is listed below:

LED	Attributes if LED 8 is off	LED	Attributes if LED 8 is on
1	Reserved	1	Activate output 1
2	Arm Only	2	Activate output 2
3	Arm Only After Close Window	3	Activate output 3
4	Master arm/disarm (can program other codes)	4	Activate output 4
5	Arm/disarm code	5	Arm/disarm
6	Allowed to bypass zones (see F23)	6	Bypass zones
7	Code will send open / close reports	7	Open / Close reporting
8	If LED 8 is **off**, LEDs 1-7 will use the details in this column	8	If LED 8 is **on**, LEDs 1-7 will use the details in this column

Note you cannot set attributes on both sides of the table above (e.g. Arm Only **and** Activate output 3).

Step 7	Press the **[✱]** key. The *ready* light will flash. This moves you to the area enable. (The user has access to areas that are illuminated by the LEDs.)
Step 8	The illuminated numbers indicate each area where the user has access. To change any of the areas where the user has access, press numbers corresponding to areas where you want to give the user access or deny access. Refer to chart shown below:

LED	Areas Assigned	LED	Areas Assigned
1	Area 1	5	Area 5
2	Area 2	6	Area 6
3	Area 3	7	Area 7
4	Area 4	8	Area 8

Example: *If zone LED 2 is lit, then the user is assigned access to area 2. By pressing the* ***[2]*** *key, the light will go off, denying access to area 2.*

Step 9	When the areas are assigned, press the **[✱]** key, returning you to Step 4. You may then enter another user number to assign authority level. Repeat Steps 4 - 8 until you have assigned authority levels to all user numbers.
Step 10	Press the **[#]** key to exit the Assigning Authority Level Program.

Note: *Any master arm/disarm code can add or change a user code if the master code has access to the same areas as the code being added/changed. Consequently, when programming the user codes for such a system, leave at least one code (can be 'Go To Program Code' if enabled in Feature 2) access to all areas or you will not be able to add new users. If you desire the end user to be able to add new codes, you must remove the area authority from all blank codes.*

10. Walk Test Mode - Function [✱] [Chime]

Step 1	Press the **[✱]**-**[Chime]** keys
Step 2	Enter a **[Master Arm/Disarm Code]** Now all zones become 24 hour, silent and local (non reporting zones). By faulting any zone, that zone will latch its zone light on the LED code pad, and sound the Chime. The Chime will continue to sound each time a zone is faulted. Once all zone are tested (zone lights lit on the LED code pad) go to step 3.
Step 3	Enter a **[Master Arm/Disarm Code]**

11. Call Back Download [✱] [9] [8] and Answer Call [✱] [9] [9]

Step 1	**Pressing [✱]-[9]-[8]** while the system is disarmed will cause the control panel to initiate a call back for a download connection (remote access). Note: a valid user code may be required after **[✱]**-**[9]**-**[8]** if enabled in Feature 0. **Pressing [✱]-[9]-[9]** while the system is disarmed will cause the control panel to seize the phone line for a download connection (remote access). Note: a valid user code may be required after **[✱]**-**[9]**-**[9]** if enabled in Feature 0.

Programming The Hills Reliance Control Panel

Features, Segments and Options

The Hills Reliance programming structure consists of Features, Segments, and Options.

Features or Feature numbers are used to locate an option or group of options.

Example: Feature 6 contains the communicator format selection and Feature 16 contains area one options.

Segments are contained within each feature, there are two types of segments.

The first segment type is referred to as an option select segment. This segment type contains up to eight options that can be toggled On or Off like dip switches.

The second segment type is referred to as a numeric segment. This segment type requires a value from ‘0’ to ‘255’ to be entered.

Options are contained within segments. An option select segment can have up to eight options. A numeric segment can have a value of ‘0’ to ‘255’.

Example: Feature 6 contains the communicator format that has one segment with one option; and Feature 16 contains area one options that has 5 segments with 40 options in total.

Navigating Program Mode

Entering The Program Mode: To enter the program Mode, press **[ρ]**-**[8]**. At this time, the five function LEDs (On, Partial, Exit, Bypass, & Chime) will begin to flash. Next, enter the ‘Go To Program Code’ (factory default is **[9]**-**[7]**-**[1]**-**[3]**). If the ‘Go To Program Code’ is valid, the ‘Service’ LED will flash and the five function LEDs will illuminate steady. You are now in the Program Mode and ready to select the module to program.

Selecting The Module To Program: Since all modules connected to the Hills Reliance are programmed through the code pad, the module you are programming should be the first entry. To program the Hills Reliance control panel, enter **[0]**-**[#]**. **[0]** is the module number of the control and the **[#]** is the enter key. Other module entry numbers can be found in their corresponding manuals.

Programming A Feature: Once the number of the module to be programmed has been entered, the ‘Armed’ LED will illuminate, indicating it is waiting for a programming feature to be entered. Any feature can be accessed by directly entering the desired programming feature followed by the hash **[#]** key. If the feature entered is a valid feature, the ‘Armed’ LED will extinguish, the ‘Ready’ LED will illuminate and the binary data for the first segment of this feature will be shown by the zone LED's. While entering new data, the ‘Ready’ LED will begin flashing to indicate a data change in process. The flashing will continue until the new data is stored by pressing the **[✱]** key. Upon pressing the **[✱]** key, the code pad will advance to the next segment and display its data. This procedure is repeated until the last segment is reached. Pressing the **[#]** key will exit from this feature, and the ‘Armed’ LED will illuminate again waiting for a new programming feature to be entered. If the desired feature is the next sequential feature, press the **[POLICE]** key. If the previous feature is desired press the **[FIRE]** key. If the same feature is desired press the **[MEDICAL]** key. To review the data in a feature, repeat the above procedure, pressing the **[#]** key without any numeric data entry. Each time the **[ρ]** key is pressed, the programming data of the next segment will be displayed for review.

Exiting A Feature: After the last segment of a feature is programmed, pressing the **[✱]** key will exit that feature, turn the ‘Ready’ LED off and the ‘Armed’ LED on. You are now ready to enter another programming feature as before. If an attempt is made to program an invalid entry for a particular segment, the code pad sounder will emit a triple error beep (beep, beep, beep), and remain in that segment awaiting a valid entry.

Exiting The Program Mode: When all the desired changes in programming have been made, it is time to exit the program mode. Pressing the **[Exit]** key will exit this programming level, and go to the ‘Select a Module to Program’ level. If no additional modules are to be programmed, pressing the **[Exit]** key again will exit the program mode. If there is a module to be programmed, it may be selected by entering its address followed by the **[#]** key (see ‘Selecting the Module To Program’ above). The procedure for programming these devices is the same as for the control panel, except the features will be for the module selected.

Programming Data

Programming Data: Programming data is always one of two types. One type of data is numerical and can take on values from 0-15 or 0-255 depending on the feature's segment. The other type of data is a Option selection type. Option selection data is used to turn options on or off. Use the following procedures when working with these two data types:

Numerical Data: Numerical data is programmed by entering a number from 0-255 on the numeric keys of the system code pad. To view the data in a feature, a binary process is used. With this process, the LED's for zones 1 through 8 are utilized, and the numeric equivalents of their illuminated LED's are added together to determine the data in a programming feature. The numeric equivalents of these LED's are as follows:

Zone 1 LED = 1	**Zone 2 LED = 2**	**Zone 3 LED = 4**	**Zone 4 LED = 8**
Zone 5 LED = 16	**Zone 6 LED = 32**	**Zone 7 LED = 64**	**Zone 8 LED = 128**

Example: If the numerical data to be programmed in a feature is '66', press **[6]**-**[6]** on the code pad. The LED's for zone 2 and Zone 7 will become illuminated indicating 66 is in that feature (2 + 64 = 66). See this example on page 22.

Once the data is programmed, press the **[ρ]** key to enter the data and advance to the next segment of that feature. After the last segment of a feature is programmed, pressing the **[ρ]** key will exit that feature, turn the 'Ready' LED off and the 'Armed' LED on. As before, you are now ready to enter another programming feature. If an attempt is made to program a number too large for a particular segment, the code pad sounder will emit a triple beep, indicating an error, and remain in that segment awaiting a valid entry.

Option Selection Data: Option selection data will display the current condition (on or off) of eight options associated with the programming feature and segment selected. Pressing a button on the touch-pad (1 thru 8) that corresponds to the 'option number' within a segment, will toggle (on/off) that option. Pressing any numeric key between **[1]** and **[8]** for selection of a option, will make the corresponding LED illuminate (option ON). Press the number again and the LED will extinguish (option OFF). You will see that numerous options can be selected from within one segment. For instance, if all eight options of a segment are desired, pressing **[1]**-**[2]**-**[3]**-**[4]**-**[5]**-**[6]**-**[7]**-**[8]** will turn on LED's 1 thru 8 as you press the keys, indicating that those options are enabled. After the desired setting of options is selected for this segment, press the **[✱]** key. This will enter the data and automatically advance to the next segment of the feature. When you are in the last segment of a feature and press the **[✱]** to enter the data, you will exit that feature. This will now turn the 'Ready' LED off and the 'Armed' LED on. As before, you are now ready to enter another programming feature.

Loading Factory Defaults

There are two methods of loading the factory defaults:

Method 1 - Enter the program mode using the procedure on page 9, then type **[9]**-**[1]**-**[0]**-**[#]**. The code pad will beep 3 times indicating that the loading is in progress. The loading takes about 6 seconds.

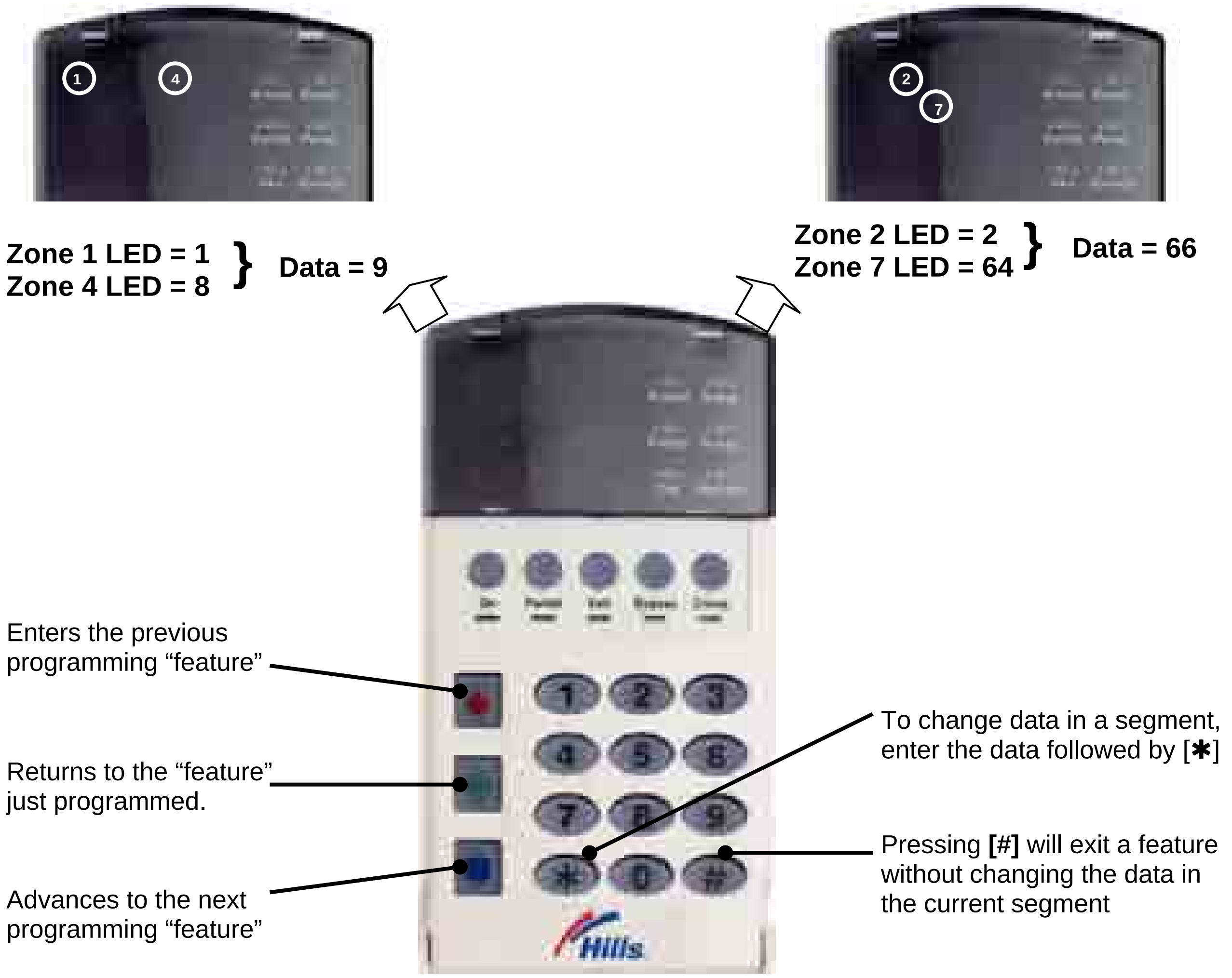
Method 2 - Enter **[9]**-**[7]**-**[1]**-**[3]**-**[0]**-**[0]** within 10 seconds of power up at any code pad which is not programmed for master mode. The procedure will default the Hills Reliance control panel even if it is armed.

Enrolling Modules & Code Pads

For supervision purposes, the Hills Reliance has the ability to automatically find and store in its memory, the presence of all code pads, zone expanders, wireless receivers, and any other module connected to the data terminal (KP DATA) whenever exiting the program mode. The enrolling process takes about 12 seconds, during which time the 'Service' LED will illuminate. Once a module is enrolled, if it is not detected by the control panel, the 'Service' LED will illuminate on that code pad.

To force module and keypad enrolment, whilst in program mode enter **[9]**-**[1]**-**[5]**-**[#]**-**[Exit]**-**[Exit]**, and wait 12 seconds.

Programming Example Figure 1 - Numerical Data (Binary)



Programming Example Figure 2 - Option Selection Data



LEDs show Options enabled

Feature 16 - Segment 1

1 = Quick Arm
2 = Re-Exit
3 = Force Arm
4 = Silent Code Pad Panic
5 = Audible Code Pad Panic
6 = Code Pad Fire
7 = Code Pad Medical
8 = Code Pad Multiple
9 = Code Attempt Tamper

Press the key on the numeric Code Pad that corresponds to the option you wish to enable/disable. When an LED is “on”, an option is enabled; when “off” the option is disabled. For example: With the 1, 5, & 7 LEDs “on”, Quick Arm, Audible Code Pad Panic and Code Pad Medical are enabled.

Programming Feature Descriptions

System Codes

Feature 0	Code Requirements

Feature 0, segment 1 is used to enable the 6 digit user code option. If 6-digit option is enabled, all arm/disarm codes, the 'Go To Program Code' and duress code are 6 digits. If this option is enabled, the default user 1 code is **[1]**-**[2]**-**[3]**-**[4]**-**[5]**-**[6]**. The Hills Reliance 128 has 99 four (4) digit user codes or 66 six (6) digit user codes, the Hills Reliance 12 has 40 codes, the Hills Reliance 8 has 8 codes. Segment 2 is used to enable user code requirement for functions **[✱]**-**[9]**-**[8]** (perform call back download) and **[✱]-[9]-[9]** (answer incoming call for download).

Segment 1	
1	On enables the 6-digit code option. Its original off state is a 4-digit code.
2	On requires code entry for **[✱]-[9]-[8]** and **[✱]-[9]-[9]** functions
3 –8	Reserved

Feature 1	Go to Program Code

Segments 1-6	9	7	1	3	0	0

Feature 1 contains the 'Go To Program Code'. This feature contains either a 4 or 6-digit code. If the 6-digit code option is enabled in Feature 0, this code must contain six (6) digits. If this option is not enabled in Feature 0, the last 2 segments (digits) will be ignored. With the panel disarmed, the 'Go To Program Code' can be used to enter the program mode.

Feature 2	Go To Program Code Area and Authorisation

The 'Go To Program Code' can be used as a standard arm/disarm code. When using the code to arm or disarm, the user I.D. is 255. (This code may not be changed in the run mode.)

Segment 1	
1	Reserved
2	On enables 'Go To Program Code' as an arm only code
3	On enables 'Go To Program Code' as an arm only after closing
(4)	On enables 'Go To Program Code' as a master code (can change user codes)
5	On enables 'Go To Program Code' as an arm/disarm code
6	On enables 'Go To Program Code' to bypass zones
7	On enables 'Go To Program Code' opening and closing reports
8	Reserved
Segment 2	
(1)	On enables the 'Go To Program Code' for area #1
(2)	On enables the 'Go To Program Code' for area #2
(3)	On enables the 'Go To Program Code' for area #3
(4)	On enables the 'Go To Program Code' for area #4
(5)	On enables the 'Go To Program Code' for area #5
(6)	On enables the 'Go To Program Code' for area #6
(7)	On enables the 'Go To Program Code' for area #7
(8)	On enables the 'Go To Program Code' for area #8

Feature 3	Duress Code

Segments 1-6	15	15	15	15	15	15

Feature 3 contains the 'Duress' code. This feature contains either 4 or 6 digits. If the 6-digit code option is enabled in Feature 0, This code must contain six (6) digits. If the 6-digit option is not enabled in Feature 0, the last 2 digits will be ignored. **If the duress code is programmed, it will work for all areas.**

Dialer Options (Features 4 – 11)

Feature 4	Phone Number One (1)

Segments 1-20	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14

The first telephone number is programmed in Feature 4.

’15’ = pulse dialling - in the segment where pulse dialling should begin
’14’ indicates the end of the phone number. Fill all empty segments after end of dialling with ‘14’
’13’ = four second delay - in the segment where a delay is required
’12’ = a ‘#’ - in the segment as required
‘11’ = for a ‘✱’ - in the segment as required

Feature 5 new	System Account Code

Segments 1-6	10	10	10	10	Reserved new	Reserved new

This is the account code sent for any area event (open/close and zone related alarms) that does not have its account code programmed. System events (siren/box tampers, expander troubles, etc.) will use the system account unless area one account is programmed.

Feature 6	Communicator Format

Segment 1	0

Feature 6 contains the communicator format used. Select a format from the format selection table. If this feature contains a ‘0’, the built-in communicator will be disabled, and the panel will function as a local only control.

Data	Communicator Format
0	**Local** Communicator is disabled
1	**Contact I.D.** DTMF format for control rooms
2	**Pager** Reports in 4 + 2 DTMF format. Phone numbers can be programmed via code pad in normal operation.
3	**Domestic Siren** Domestic dialling via a siren tone format. Call can be kissed off via the star (✱) key on a DTMF phone. Phone numbers can be programmed via code pad in the run mode.

Feature 7	Phone Number Two (2)

Segments 1-20	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14

The second telephone number is programmed in Feature 7.

’15’ = pulse dialling - in the segment where pulse dialling should begin
’14’ indicates the end of the phone number. Fill all empty segments after end of dialling with ‘14’
’13’ = four second delay - in the segment where a delay is required
’12’ = a ‘#’ - in the segment as required
‘11’ = for a ‘✱’ - in the segment as required

Feature 8	Phone Number Three (3)

Segments 1-20	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14

The third telephone number is programmed in Feature 8.
’15’ = pulse dialling - in the segment where pulse dialling should begin
’14’ indicates the end of the phone number. Fill all empty segments after end of dialling with ‘14’
’13’ = four second delay - in the segment where a delay is required
’12’ = a ‘#’ - in the segment as required
‘11’ = for a ‘✱’ - in the segment as required

Feature 9	Event Report Summary

Feature 9 is a summary of event reporting codes found in the area and system features. Area report events are enabled in area options, but will also need to be enabled in this feature. This approach is used to simplify event selection programming.

Segment 1	
(1)	Alarms
(2)	Alarm Restores
3	Opening / Closing (alarm system disarmed = open, alarm system armed = close)
(4)	Bypass and Bypass Restore
5	Zone Trouble and Restore
(6)	Power Trouble (AC Failure or Low Battery) and Restore
7	Tampers and Restore (Zone, Box, Code Pad and also for Zone Activity Monitor)
(8)	Test Reports
Segment 2	
(1)	System Trouble (siren / phone / expander / short circuit) and Restore
(2)	Failure to Communicate
(3)	Sensor Lost / Sensor Low Battery
4	Program, Download, & Full Log (Full Log must also be enabled in system options)
(5)	Cancel Code (Cancel reporting must also be enabled in area options)
6	Recent Closing / Exit Error
7	Reserved
8	Reserved

Feature 10	Dial Attempts and Dialing Options

Segments 1-2	6	0

Feature 10, Segment 1 is used to enter the number of dial attempts (1 to 15 attempts) the communicator will make to phone #1 before ending the notification process. Factory default is ‘6’ and the communicator will make 6 attempts to the first number.

Feature 10, Segment 2 configures additional functionality. Factory default is “0” – no function.
A value of “1” enables Dual Reports – sends reports to both phone number 1 & 2.
A value of “4” enables extended phone number and joins Feature 4 & 7 together for a 40 digit phone number.

Feature 11	Phone Line Cut Delay

Segment 1	0

Feature 11 contains the number of second increments in the telephone line monitor delay before phone line fault is activated. The telephone line monitor delay can be programmed in 1 second increments from 1 to 255 seconds.
Note: The Hills Reliance 128 and 12 internal phone line monitoring circuit requires approximately 5 seconds to discharge before it senses a missing phone line, you must add this time to the value in this feature when testing this option. A value of “0” = disabled.

Download Options (Features 12 – 15)

Feature 12	Download Access Code

Segments 1-8	1	6	0	0	0	0	0	0

Feature 12 contains the eight digit access code the panel must receive from the downloading software before the panel will permit downloading to occur.

Feature 13	Number of Rings (Seg 1) / Number of Calls to Answer (Seg 2)

Segments 1-2	0	0

Feature 13, segment 1 contains the number of rings the panel must detect before answering the telephone line when initiating a download session. A value of 1 to 15 can be entered in this segment. Segment 2 contains the number of calls the panel must detect before accepting the number of rings in segment 1. A value of 1 to 15 can be entered in this segment. A call is satisfied by one (1) or more rings, and then an eight (8) second period of no ringing. The next call must then be made within 45 seconds. The total number of calls must be reached before the panel will count for the number of rings (in segment 1) during the necessary subsequent call. A value of "0" = disabled.

Feature 14	Download Control

Feature 14 contains the option selections for the controlling of download sessions. The following options can be enabled or disabled using this feature.

Segment 1	
1	On enables two call Answering Machine Defeat (see page 28 for a full explanation of this option).
2	Reserved
3	On enables Call Back Before Download Session (see Feature 15).
4	On enables Control Panel Shutdown **(Can only be viewed from the code pad, must be changed through downloading).**
5	On locks all local programming **(Can only be viewed from the code pad, must be changed through downloading).**
6	On locks programming of all features associated with the communicator **(Can only be viewed from the code pad, must be changed through downloading).**
7	On locks out download section. (If 'On', Features 12-15 cannot be viewed from the code pad) **Note: This segment can only be changed through the download software.**
8	On enables Call Back at Auto Test Interval to perform download software automatic functions (Refer to your download software help for a full explanation of this option).

Feature 15	Call Back Number

Segments 1-20	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14

If a telephone number is programmed into this feature, and "Call Back Before Download Session" is enabled in Feature 14, the control panel will hang up for approximately 10 seconds and then call back. If pulse dialling is desired, program a '15' in the segment where pulse dialling should begin. If the entire number should be pulse dialling, program a '15' in the first segment. Four-second delays can be obtained anywhere in the sequence by programming a '13' in the appropriate delay feature.

Warning: the call back phone number should always be reviewed for accuracy before disconnecting!

Feature 16 new — Area 1 – Option and Report Selections

Feature 16 is used to enable certain options for this area and code pads in this area. In addition, certain communicator reports are enabled in Feature 16. Each of these options can be enabled by area. For additional area information see Features 37-58 on pages 40-44. **If the option selection feature for any area is left blank, that area will use this feature for the option selection.** This feature contains 5 segments of 8 options each.

Segment 1	
(1)	On enables the Quick Arm option
(2)	On enables the Re-exit option
3	On enables the Force Arm option
4	On enables the Silent Code Pad Panic option
(5)	On enables the Audible Code Pad Panic option
(6)	On enables the Code Pad Fire option
(7)	On enables the Code Pad Medical option
8	On enables the Code Pad Multiple Code Attempt Tamper option
Segment 2	
1	On enables the LED Extinguish option
2	On enables the Require Code for Bypassing option
3	On enables the Zone Bypassed Sounder Alert option
(4)	On enables the AC Power/Low Battery Sounder Alert option
(5)	On enables Bypass toggle
6	On enables Silent Auto-Arm
7	On enables the Universal Arming option
8	On enables the One Key Partial Mode Disarm
Segment 3	
(1)	On enables Opening and Closing reports
(2)	On enables Zone Bypass reporting
(3)	On enables Zone Restore reporting
(4)	On enables Zone Trouble reporting
(5)	On enables Zone Tamper reporting
6	On enables the Cancel reporting
(7)	On enables Recent Closing reporting
(8)	On enables Exit Error reporting
Segment 4 new	
1 new	On enables Late To Close reporting (requires Feature 6 to be set to Contact ID)
2 new	On enables Auto-Arm In Partial
3 new	Reserved
4 new	On enables Disable Bypass For Force Arm Zones
5 new	Reserved
6 new	Reserved
7 new	Reserved
8 new	Reserved
Segment 5 new	
1 new	Reserved
2 new	Reserved
3 new	Reserved
4 new	Reserved
5 new	Reserved
6 new	Reserved
7 new	Reserved
8 new	Reserved

Area Option Descriptions

AC Power / Low Battery Sounder Alert
If enabled, the panel will beep the Code Pad sounder upon arming or disarming if the AC power is missing or a low battery has been detected.

Answering Machine Defeat
If enabled, the DL900 software calling the panel will ring (briefly), hang up and ring (briefly) again. The sequence will be repeated as many times as programmed in Feature 13. Answering machines usually answer calls after a long ring period. The Answering Machine Defeat feature prevents the answering machine from answering the call from the DL900 software.

Bypass Code
If enabled, the panel will require a valid user code to be entered during the zone bypass function.

Cancel
If enabled, the panel will send a 'Cancel' report when the system is disarmed by a valid user after an alarm activation. The cancel code followed by the user number.

Code Pad Activated Panics
The panel has three Code Pad activated panics that will send reports to the central station: Fire, Medical, and Code Pad Panic. The Fire key will activate the steady (Fire) siren, the Medical key will sound the Code Pad (the Medical key can be set for silent activation in system options), and the Code Pad Panic can be programmed to be silent or audible (sound siren).

Code Pad Tamper
If enabled, the panel will disable the Code Pad for 60 seconds and communicate a tamper signal to the central station if 30 key-presses are entered without producing a valid code. The Code Pad sounder will remain functional.

Exit Error
If enabled, the panel will send an 'Exit Error Report' if an entry/exit zone is faulted at the instant the exit delay expires. This report will be sent along with the user number that armed the system, if the panel is not disarmed before the entry delay expires. The alarm report will also be sent. Even if this option is not enabled, the siren will sound if any entry/exit zone is faulted at the instant the entry delay expires. This option is enabled by default, but needs to be set to report in Feature 9 for proper operation.

Force Arming
When enabled, the panel can be Force Armed with zones faulted. Under this condition, if a force arm zone is not secure, the 'Ready' LED will flash. At the end of the exit delay, these zones will become bypassed. If these zones become secured any time during the arming cycle, they will be un-bypassed and remain active in the system. If 'Bypass Report' is enabled, the force arming zones can be programmed to report bypass when they are Force Armed (default), or to not report bypass even if 'Bypass Report' is enabled (refer to system options).

Group Bypass
A designated group of zones can be programmed to bypass by pressing **[Bypass]**-**[0]**-**[0]**-**[Bypass]** prior to arming.

Group Toggle
If enabled, the panel can toggle the Group Bypass zone in and out of bypass mode by pressing the **[Bypass]** key. This option if active when ever the panel is in either Partial or Full Arm mode.

LED Extinguish
This option will extinguish all LEDs on the Code Pad, except the 'Power' LED, after 60 seconds without a key-press. Pressing any numeric key will illuminate all LEDs.

One Key Partial Mode Disarm
If enabled, the panel can be disarmed from the Partial Mode by pressing the Partial key.
If disabled, the panel requires a full user code to be entered to disarm the system.

Partial Mode
Partial mode allows system owners to arm only designated partial zones (e.g. downstairs, front doors, garage), bypassing all non-partial zones (e.g. upstairs bedroom). Partial mode encourages system owners to use their alarm system more frequently when the premise is occupied. When armed in the 'Partial' mode, the opening of any zones designated as 'Partial Mode zone' will initiate the code pad sounder and start the Partial Mode entry delay before creating an alarm. All other zones will be bypassed during Partial mode. To arm this area in Partial Mode, press the **[Partial]** key on the code pad.

Quick Arm Option
The panel has a one button 'Quick Arm' option that can be used to arm the system by pressing the **[ON]** key on the Code Pad. If closing reports are sent, the user code will be 98.

Recent Closing
If enabled, the panel will send a 'Recent Closing Report' to the central station if an alarm occurs within 5 minutes after the panel is armed. The user number that armed the system will also be sent. This option is enabled by default, but needs to be set to report in Feature 9 for proper operation.

Area Option Descriptions

Re-exit
The panel has the ability to restart the exit delay if required without disarming the system by pressing the **[Exit]** key while the system is running the exit delay. This option can only be used once per arming cycle.

Silent Auto-Arming
If enabled, the panel will Auto-Arm this area and not activate the 50 second code pad sound. This option is used when you don't want to alert any other area of your Auto-Arm time.

Universal Arming
When enabled, using the quick arm function (ON button on code pad) or entering a valid user code will arm the panel in Partial mode if an exit zone is **not** faulted during the exit delay time.

Zone Bypassed Sounder Alert
If this option is enabled, the panel will beep the Code Pad sounder upon arming if a zone is bypassed.

Late To Close Reports new
If this option is enabled, the panel will send a Late To Close report to the central monitoring station if Contact ID is enabled in Feature 6 and the panel has not been armed by the Closing Time in Feature 34.

Auto-Arm In Partial new
If this option is enabled and Auto-Arming is enabled in Feature 36 then the panel will Auto-Arm that area in partial mode at the Closing Time set in Feature 34.

Disable Bypass For Force Arm Zones new
If this option is enabled then at the end of the Exit Delay if any Force Arm type zones are unsealed they will not be bypassed and the zone will activate the alarm as per its Zone Configuration Type characteristic.

Feature 17 new — Area 1 – Entry / Exit Timers

	Entry Time 1	Exit Time 1	Entry Time 2	Exit Time 2	Reserved new	Reserved new
Segments 1-6	30	60	30	60		

Feature 17 sets the primary and secondary entry / exit times for area 1. Valid entries are 10-255 seconds

Zones 1 – 8 Configuration

Feature 18 — Zones 1-8 Configuration Group

Segments 1-8	3	7	16	16	16	16	16	16

Feature 18 contains the Configuration Group (zone type) for zones 1-8. Segment 1 is for zone 1, and Segment 8 is for zone 8. Refer to the 'Default Zone Configuration' table in this section for zone type selections.

Default Zone Configurations

Zones can be programmed to be one of 32 different zone configurations (zone types). Configurations 1 to 20 can be modified in the configuration group section of this manual. Configuration groups 21 to 31 are factory set and cannot be altered. Choose one of the 30 default zone configurations to program into each of the zone configuration segments (e.g. features 18, 20, 59, 61, 63, 65, 119, 121, etc). Study this table for the appropriate zone configuration group for each zone.

Data	Default Zone Configuration
0 new	**Zone Disabled**
1	**Entry / Exit Delay 1: Partial – Forced Arming –** A trip will start entry delay 1. This zone will be active in partial mode. This zone type may be faulted while arming if forced arming is enabled in the area options.
2	**Entry / Exit Delay 1: Chime – Forced Arming –** A trip will start entry delay 1. This zone will be bypassed in partial mode. This zone type will set the code pad chime if set via the code pad **[Chime]** key.
3	**Entry / Exit Delay 1: Partial – Chime – Forced Arming –** A trip will start entry delay 1. This zone will be active in partial mode. This zone type may be faulted while arming if forced arming is enabled in the area options. This zone type will set the code pad chime if set via the code pad **[Chime]** key.

Data	Default Zone Configuration
4	**Entry / Exit Delay 2: Partial – Forced Arming –** A trip will start entry delay 2. This zone will be active in partial mode. This zone type may be faulted while arming if forced arming is enabled in the area options.
5	**Entry / Exit Delay 2: Partial – Chime – Forced Arming** - A trip will start entry delay 2. This zone will be active in partial mode. This zone type may be faulted while arming if forced arming is enabled in the area options. This zone type will set the code pad chime if set via the code pad **[Chime]** key.
6	**Handover: Forced Arming** – Interior zone that follows the entry delay zones. Instant alarm type unless an entry zone if faulted first. This zone will be bypassed in partial mode. This zone type may be faulted while arming if forced arming is enabled in the area options.
7	**Handover: Partial – Forced Arming** – Interior zone that follows the entry delay zones. Instant alarm type unless an entry zone if faulted first. This zone will be active in partial mode. This zone type may be faulted while arming if forced arming is enabled in the area options.
8	**Handover: Twin Trip – Forced Arming** – Interior zone that follows the entry delay zones. Instant alarm type unless an entry zone if faulted first. This zone will be bypassed in partial mode. This zone type may be faulted while arming if forced arming is enabled in the area options. This zone type will require two triggers or another zone would have to have been trigged before it will activate an alarm.
9	**Handover: Group Isolate – Forced Arming** – Interior zone that follows the entry delay zones. Instant alarm type unless an entry zone if faulted first. This zone will be bypassed in partial mode. This zone type may be faulted while arming if forced arming is enabled in the area options. This zone type will be part of the group bypass zones.
10	**Handover: Twin Trip – Chime – Forced Arming** – Interior zone that follows the entry delay zones. Instant alarm type unless an entry zone if faulted first. This zone will be bypassed in partial mode. This zone type may be faulted while arming if forced arming is enabled in the area options. This zone type will require two triggers or another zone would have to have been trigged before it will activate an alarm. This zone type will set the code pad chime if set via the code pad **[Chime]** key.
11	**Handover: Partial – Twin Trip – Forced Arming** – Interior zone that follows the entry delay zones. Instant alarm type unless an entry zone if faulted first. This zone will be active in partial mode. This zone type may be faulted while arming if forced arming is enabled in the area options. This zone type will require two triggers or another zone would have to have been trigged before it will activate an alarm.
12	**Handover: Partial – Group Bypass – Forced Arming** – Interior zone that follows entry delay zones. Instant alarm type unless an entry zone if faulted first. This zone will be active in partial mode. This zone type may be faulted while arming if forced arming is enabled in the area options. This zone type will be part of the group bypass zones.
13	**Handover: Twin Trip – Group Bypass – Forced Arming** – Interior zone that follows the entry delay zones. Instant alarm type unless an entry zone if faulted first. This zone will be bypassed in partial mode. This zone type may be faulted while arming if forced arming is enabled in the area options. This zone type will require two triggers or another zone would have to have been trigged before it will activate an alarm. This zone type will be part of the group bypass zones.
14	**Handover: Partial – Twin Trip – Group Isolate – Forced Arming** – Interior zone that follows the entry delay zones. Instant alarm type unless an entry zone if faulted first. This zone will be active in partial mode. This zone type may be faulted while arming if forced arming is enabled in the area options. This zone type will require two triggers or another zone would have to have been trigged before it will activate an alarm. This zone type will be part of the group bypass zones.
15	**Instant:** – Produces an instant alarm if tripped when armed. Ignored when disarmed. This zone will be bypassed in partial mode.
16	**Instant: Partial** – Produces an instant alarm if tripped when armed. Ignored when disarmed. This zone will be active in partial mode.
17	**Instant: Partial (no DEOL)** – Produces an instant alarm if tripped when armed. Ignored when disarmed. This zone will be active in partial mode. This zone type will not be enabled for dual end of line monitoring if enabled in the system options.
18	**Instant: Twin Trip – Forced Arming** – Produces an instant alarm if tripped when armed. Ignored when disarmed. This zone will be bypassed in partial mode. This zone type may be faulted while arming if forced arming is enabled in the area options. This zone type will require two triggers or another zone would have to have been trigged before it will activate an alarm.
19	**Instant: Group Bypass** – Produces an instant alarm if tripped when armed. Ignored when disarmed. This zone will be bypassed in partial mode. This zone type will be part of the group bypass zones.
20	**Instant: Partial – Chime** – Produces an instant alarm if tripped when armed. Ignored when disarmed. This zone will be active in partial mode. This zone type will set the code pad chime if set via the code pad **[Chime]** key.

Data	Default Zone Configuration (Zones 21-31 are not reprogrammable)
21	**Instant: Partial – Twin Trip** – Produces an instant alarm if tripped when armed. Ignored when disarmed. This zone will be active in partial mode. This zone type will require two triggers or another zone would have to have been trigged before it will activate an alarm.
22	**Instant: Partial – Group Bypass** – Produces an instant alarm if tripped when armed. Ignored when disarmed. This zone will be active in partial mode and will be part of the group bypass zones.
23	**Instant: Twin Trip – Group Bypass** – Produces an instant alarm if tripped when armed. Ignored when disarmed. This zone will be bypassed in partial mode. This zone type will require two triggers or another zone would have to have been trigged before it will activate an alarm. This zone type will be part of the group bypass zones.
24	**Instant: Partial – Twin Trip – Group Bypass** – Produces an instant alarm if tripped when armed. Ignored when disarmed. This zone will be active in partial mode. This zone type will require two triggers or another zone would have to have been trigged before it will activate an alarm. This zone type will be part of the group bypass zones.
25	**Instant: Local** – Produces an instant alarm if tripped when armed. Ignored when disarmed. This zone will be bypassed in partial mode. This zone will not activate the communicator.
26	**24 Hour: Audible** – A trip on a 24 Hour zone produces an instant alarm when armed or disarmed. This zone type will set sirens.
27	**24 Hour: Silent** – A trip on a 24 Hour zone produces an instant alarm when armed or disarmed. This zone type will not set sirens.
28	**Fire:** – A short on a fire zone will create an alarm condition when the system is armed or disarmed. An open will create a Trouble condition. Requires smoke detectors wired Normally Open. Code pad zone LED is steady for fire condition and flashing for trouble condition. After a fire activation, press **[*] [7]** on the code pad to clear & reset fire zone. Note: 120 seconds of chamber full = alarm.
29	**Day Zone:** – When armed, a trip produces an instant alarm. When disarmed, a trip activates the code pad sounder.
30	**Key-Switch:** – A zone attached to a momentary key switch will arm/disarm the panel if the zone is momentarily shorted from a sealed condition. A 3.3K resister must be used. Note: If DEOL monitoring is enabled in system options, this zone type must have its EOL configuration as all other DEOL zones, i.e. two 3.3K resistors must be used to allow full line monitoring for this zone type.
31	**Chime:** – This zone will sound a ding-dong on code pads when unsealed. **Alarm activation will occur if armed**.

Feature 19 — Zone Area Select - Zones 1-8

Feature 19 is used to select the area(s) that zones 1 - 8 reside in. A zone may reside in any combination of the eight areas. If a burglary zone resides in more than one area, it will only be active when all areas it resides in are armed. A zone that resides in more than one area will be reported to its lowest area number. Feature 19 has 8 segments. Segment 1 corresponds to zone 1, and Segment 8 corresponds to zone 8.

	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8
Segment 1 – Zone 1	(1)	2	3	4	5	6	7	8
Segment 2 – Zone 2	(1)	2	3	4	5	6	7	8
Segment 3 – Zone 3	(1)	2	3	4	5	6	7	8
Segment 4 – Zone 4	(1)	2	3	4	5	6	7	8
Segment 5 – Zone 5	(1)	2	3	4	5	6	7	8
Segment 6 – Zone 6	(1)	2	3	4	5	6	7	8
Segment 7 – Zone 7	(1)	2	3	4	5	6	7	8
Segment 8 – Zone 8	(1)	2	3	4	5	6	7	8

Zones 9 – 16 Configuration

Feature 20 — Zones 9-16 Configuration Group

Segments 1-8	16	16	16	16	16	16	16	16

Feature 20 contains the Configuration Group (zone type) for zones 9-16. Segment 1 is for zone 9, and Segment 8 is for zone 16. Refer to the ‘Default Zone Configuration’ table in this section for zone type selections.

Feature 21 — Zone Area Select - Zones 9-16

Feature 21 is used to select the area(s) that zones 9-16 reside in. A zone may reside in any combination of the eight areas. If a burglary zone resides in more than one area, it will only be active when all areas are armed. A zone that resides in more than one area will be reported to its lowest area. Feature 21 has 8 segments. Segment 1 corresponds to zone 9 and Segment 8 corresponds to zone 16.

	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8
Segment 1 – Zone 9	(1)	2	3	4	5	6	7	8
Segment 2 – Zone 10	(1)	2	3	4	5	6	7	8
Segment 3 – Zone 11	(1)	2	3	4	5	6	7	8
Segment 4 – Zone 12	(1)	2	3	4	5	6	7	8
Segment 5 – Zone 13	(1)	2	3	4	5	6	7	8
Segment 6 – Zone 14	(1)	2	3	4	5	6	7	8
Segment 7 – Zone 15	(1)	2	3	4	5	6	7	8
Segment 8 – Zone 16	(1)	2	3	4	5	6	7	8

Feature 22 new — System Options new

Feature 22 is used to enable various system option and reporting options.

Segment 1	
(1)	On if siren sounds for 'Telephone Line Cut' when armed
2	On if siren sounds for 'Telephone Line Cut' when disarmed
3	On if siren blast at arming – (A siren chirp when any area is armed)
4	On if siren blast at exit expiration – (A siren chirp when any area exit delay expires)
5	On if siren blast at closing kiss-off – (A siren chirp when any area sends a closing report)
(6)	On if siren limited to once per zone
7	On if siren sounds for any Tamper
(8)	On if siren blasts 1 time for key-switch and wireless arming; 2 times for disarming (when using NX-148E in master mode on a multi-area system, siren blasts on all area disarm)
Segment 2	
1	On if siren driver should be a voltage output. Off = speaker output.
2	On if sirens should sound on expander trouble
3	On if Communicator limited to once per zone
4	On if First to Open Last to Close Reports
5	On if Battery Missing Test is performed every 12 seconds
(6)	On if Strobe flashes for 3 seconds for key-switch and wireless arming, 6 seconds for disarming
7	On if Manual Communicator Test performed during [ρ]-[44] test function
(8)	On if Box Tamper Pins on the control panel are enabled
Segment 3	
(1)	On if Box Tamper reporting enabled
(2)	On if AC Fail reporting enabled
(3)	On if Low Battery reporting enabled
(4)	On if Aux Power Over-current reporting enabled
(5)	On if Siren Supervision reporting enabled
(6)	On if Telephone Line Cut reporting enabled
7	Reserved
(8)	On if Expander Trouble reporting enabled

Segment 4	
(1)	On if Fail To Communicate report enabled
2	On if Log Full report enabled
(3)	On if Auto-test report enabled
(4)	On if Start/End programming report enabled
(5)	On if End Download report enabled
(6)	On if Sensor Low Battery report enabled
(7)	On if Sensor Missing report enabled
8	On if Expander Module (number) to be reported via the Contact I.D. report
Segment 5 new	
(1)	On enable Lost Clock service light
2	On enables Zone Doubling
3 new	On disables all hardwired zones on the main board. **Must cycle power on/off to disable or re-enable hardwire zones.**
4	On will enable all Dual End of Line (DEOL) resistors on all zones
5	On will prevent force armed zones to report bypass
6	On enables Silent Exit option
7 new	Reserved
8	On will Auto Partial Arm Area 1
Segment 6 new	
1 new	Enable Two Wire Smoke
2 new	Reserved
3 new	Enable Zone Inactivity Time In Hours. Default is off = days.
4 new	Reserved
5 new	Enable DC Operation
6 new	Reserved
7 new	Enable Steady (Temporal) Siren. Default is off = Evacuation Siren for fire events.
8 new	Reserved
Segment 7 new	
1 new	Reserved
2 new	Reserved
3 new	Reserved
4 new	Reserved
5 new	Reserved
6 new	Reserved
7 new	Reserved
8 new	Reserved

System Option Descriptions

Auto Partial Arm Area One

If enabled, area one will auto partial arm at the auto-arm time. If this option is enabled, area one cannot be auto-armed in the full mode (see F 22 – Seg 5 – Op 8).

Battery Testing

The Hills Reliance can test for the presence of the battery every 12 seconds (see F 22 – Seg 2 – Op 5).
The Hills Reliance will also test the battery condition at disarm, once per 24 hour cycle.

Box Tamper

If enabled, the Hills Reliance will use the N/C Box Tamper pins provided on the main board (see F 22 – Seg 2 – Op 8).

Dual End Of Line (Zone Tamper)

If enabled, the Hills Reliance will monitor all zones except types 17 and 28 for Dual End Of Line. A short or open circuit on a DEOL will set zone tamper alarms. Refer to the terminal wiring diagram for more detail (see F 22 – Seg 5 – Op 4).
To reset tamper condition press **[ρ]**-**[7]** on code pad.

System Option Descriptions

Enable Steady (Temporal) Siren new
If enabled this option will enable the Steady (Temporal) Siren tone and disable the Evacuation Siren tone for all fire events and any zone that has this option set in its configuration group type.

Expanded Contact I.D.
The Hills Reliance can report all system device alarms with their individual point number if the expanded Contact I.D. reporting is enabled (see F 22 – Seg 4 – Op 8).

First To Open / Last To Close
If enabled, the Hills Reliance will only send a closing report when the last area is armed. Note: the last area to arm must have open/close reports enabled. The Hills Reliance will only send an opening report when the first area is disarmed. Note: the first area to disarm must have open/close reports enabled (see F 22 – Seg 2 – Op 4).

Force Arm Bypass Reports
If enabled, the Hills Reliance restricts bypass reports when zones are forced armed. Otherwise, when a zone is forced armed (and bypass reports are enabled), bypass reports are sent at the end of exit time. If forced armed zones re-seal during the armed period, bypass restores are sent (see F 22 – Seg 5 – Op 5).

Limited Sirens / Communicator
If enabled, the Hills Reliance will only set one siren activation per zone and/or one alarm report per zone. This option must be disabled if the siren and communicator attempt counter option is used. If limited communicator is enabled, restore reports (if enabled) will be sent at disarm, otherwise restore reports will be sent as they occur (see F 22 – Seg 2 – Op 3).

Lost Clock
If enabled, the Hills Reliance will illuminate the service LED whenever the internal clock is interrupted (see F 22 – Seg 5 – Op 1). E.g. Loss of power.

On-Board Zone Disable
If enabled, the Hills Reliance can disable the on-board hardwire zones. This is used when the Hills Reliance is used as a totally wireless system (see F 22 – Seg 5 – Op 3).

Radio Remote Arm
If enabled, the Hills Reliance will activate the sirens every time the system is armed or disarmed with a key-switch zone or integrated wireless keyfob. The sirens will chirp once for arming and twice for disarming. The strobe will flash for 3 seconds for arming and 6 seconds for disarming (see F 22 – Seg 1 – Op 8).

Silent Exit Option
The exit delay can be silenced by pressing **[✱]**-**[Exit]** before arming the control panel, or when using the re-exit option. The exit delay can also be silenced permanently in all areas (see F 22 – Seg 5 – Op 6).

Tamper Siren
If enabled, all zone tampers and module tampers will set the system sirens (see F 22 – Seg 1 – Op 7).

Telephone Line Cut Siren
If enabled, it will set the siren for the siren time whenever the phone line monitor is activated. Reset the phone line siren by entering a valid PIN code. This option sets phone line cut sirens in either armed and or disarmed mode. In a multi-area system, 'a system armed state' would be represented by any area that is armed (see F 22 – Seg 1 – Op 1 & 2).

Two Wire Smoke new
On the Hills Reliance 128, if enabled Zone 8 and Com terminals are set for two-wire smoke detector compatibility when Zone 8 is configured with zone type 28. Must use a 680 Ohm EOL resistor.

Voltage Output
If enabled, the on-board siren output will become a 1 Amp 12VDC output to drive 12VDC sirens (see F 22 – Seg 2 – Op 1).

Zone Doubling
If enabled, the 4/6/8 on-board zones will be doubled to 8/12/16 zones by using different resistors. E.g. on the Hills Reliance 12, zone 1 terminal will wire to zones 1 and 7, and zone 6 terminal will wire to zone 6 and 12. This option cannot be selected for zones other than the 4/6/8 hardwired zones on the main panel. This option cannot be used in conjunction with the Dual EOL option. (See F 22 – Seg 5 – Op 2). If zone doubling is enabled the Aux 4 two-wire smoke cannot be enabled.

Zone Inactivity Time In Hours new
If enabled the Zone Inactivity Timer in Feature 25 – Segment 11 will be set in hours not days. This feature is used when the Zone Activity Monitor is enabled in the Zone Configuration Group type (e.g. F 68 – Seg 4 – Op 1). Zone activity is checked hourly, so depending on the time of last activity there may be up to 1 hour delay before the zone activity is checked again and Zone Inactivity event reported. For Zone Inactivity to report Zone Tamper Reporting must be set in Feature 9 – Segment 1 – Option 7.

Feature 23 — Siren / Communicator Attempt Counter

Segment 1	0

Feature 23 is used to set the burglary zone siren / communicator attempt counter. The number programmed in segment 1 will determine the number of alarm activations the Hills Reliance will allow before bypassing all burglary zones (1-128) that have tripped during the arming cycle. The bypassed zones will not report trips to a base station, and the local siren or bell will not sound for these zones. A zone trip will not be added to the number count until the zone has tripped more than once. For this option to be valid, sirens and or the communicator must be set to unlimited in system options.

Feature 24 — Code Pad Sounder Control

The panel can set the code pad sounder for most alarm conditions. Feature 24 provides 8 system alarms that can be enabled to set the code pad sounder. A code pad sounder activation can be silenced by entering a valid user code. Note. The AC power fail and low battery code pad sounder activations will occur the instant these conditions are present. All options in this feature are global to all code pads.

Segment 1	
(1)	On if code pad sounds for 'Telephone Line Cut' when the system is armed
(2)	On if code pad sounds for 'Telephone Line Cut' when disarmed
3	On if code pad sounds upon AC Power Failure
4	On if code pad sounds when a Low Battery is detected
5	On if code pad sounds during Twin Trip time
(6)	On if code pad sounds for Zone and Box Tampers
7	On if code pad sounds for Medical Alarm
8	On if code pad sounds for Expander Trouble

System Timer Configuration

Feature 25 new — System Timers

Feature 25 contains the duration of various system timing functions. Example: If you desire the duration of the Strobe time to be 48 hours, you should program **[4]**-**[8]**-**[✱]** in segment 2 of this feature. The **[4]**-**[8]** is the number of hours, and the **[✱]** stores the data and moves to the next segment of this feature.

	Seg 1	Seg 2	Seg 3	Seg 4	Seg 5	Seg 6	Seg 7	Seg 8	Seg 9	Seg 10	Seg 11	Seg 12	Seg 13	Seg 14
Segments 1-14	20	0	2	30	5	5	5	0	120	0	0	0	0	0

Segment 1	Partial Arm Entry Time (10 – 255 sec)
Segment 2	Strobe Time (0 – 255 hours)
Segment 3	Dynamic Battery Test Duration (0 – 255 min)
Segment 4	AC Failure Report Delay (0 – 255 min)
Segment 5	Siren Time (1 – 255 min)
Segment 6	Twin Trip Time (0 – 255 min)
Segment 7 new	Chime Option ('0' = Follow, '5' = Chime once, '255' = Latch)
Segment 8	Dialer Delay Time (0 – 255 sec)
Segment 9	Fire Alarm Verification Time (120 – 255 sec)
Segment 10 new	Reserved
Segment 11 new	Zone Inactivity Time (default is in days, see Feature 22 – Segment 6 – Option 3)
Segment 12 new	Reserved
Segment 13 new	Reserved
Segment 14 new	Reserved

System Timer Descriptions

Partial Arm Entry Time

The Partial Arm Entry time is the delay time that will be allocated to all active zones in Partial Arm Mode. Fire and 24 Hour Zones will not be affected in Partial Arm Mode. The valid time selection in this segment is 10 to 255 seconds.

Strobe Time

The strobe time is the duration that output programmed to follow the strobe time will activate. The valid time selection in this segment is 0 to 255 hours, where ‘0’ = Latching.

Dynamic Battery Test

The panel can perform a Dynamic Battery Test for the duration in this segment at the disarming of the first area after 00:00 hours once each 24-hour cycle. This option is enabled by programming a test duration in this segment. The valid time selection in this segment is 1 to 255 minutes.

AC Fail Report

The number programmed in this segment represents the number of 1 minute increments the AC power is lost before a communication is initiated, from 1 to 255 minutes. The AC power restore will also delay reporting until after the number of minutes programmed in this feature has elapsed.

Siren Time

The Siren Time is the duration that the siren output and auxiliary outputs programmed to follow the siren time will activate. The valid time selection in this segment is 1 to 255 minutes.

Twin Trip Time

This segment contains the number of one (1) minute increments in the Twin Trip Zone Time Period. The Twin Trip Zone Time Period can be programmed in one (1) minute increments from 1 to 255. The time programmed in this feature will set the time period whereby two or more zones must trip before an alarm condition will be registered or the one zone must trigger twice within this time period, or a continuous trip longer than 10 seconds.

Chime Option

The code pad chime is a true chime sound, which can be set to follow the input status, chime once, or latch until a valid code is entered. The options programmable in this segment are: ‘0’ = Follow, ‘5’ = Chime once or ‘255’ = Latch.

Dialer Delay Time

The panel can delay the dialling of all non 24-hour zones by the duration programmed in this feature. The valid time selection in this segment is 0 to 255 seconds.

Fire Alarm Verification Time

When enabled, the panel will verify a fire alarm by requiring more than one trip on a smoke detector within the time programmed in this segment before creating an alarm. The valid time selection in this segment is 120 to 255 seconds.

Zone Inactivity Time

This option is used to set the Zone Inactivity Time in days from 1 to 255. This option is used in conjunction with the Zone Activity Monitor that is set in the Characteristics of the Zone Configuration Group Type.
If Feature 22 – Segment 6 – Option 3 is enabled then this time is in hours not in days, from 2 to 255 hours.

Auxiliary Output 1 – 4 Configuration

Feature 26 — Auxiliary Output 1-4 Area Selection

Feature 26 is used to select which area(s) the events must occur in before the output will activate. Feature 26 has 4 segments. Segment 1 corresponds to output 1, and Segment 4 corresponds to output 4.

	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8
Segment 1 – Output 1	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Segment 2 – Output 2	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Segment 3 – Output 3	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Segment 4 – Output 4	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

Feature 27 new	Auxiliary Output 1-4 Special Timing

Feature 27 contains special timing option activation for the four auxiliary outputs. Segment 1 corresponds to output 1; Segment 4 corresponds to output 4.

Hills Reliance 8 (Only) Note new : The Hills Reliance 8 has no Aux 3 terminal, instead Feature 27 – Segment 3 relates to the SMOKE terminal. By default on the Hills Reliance 8, F 27 – Seg 3 – Opt 3 is **off** (i.e. "follow timer") and Opt 6 is **on** (i.e. 0V output). Turn F 27 – Seg 3 – Opt 6 off if you wish to connect a smoke detector. When Option 6 is **on = 0V output**, **off = 12V output** on SMOKE terminal. This allows the SMOKE terminal to function as a voltage output relay. You may need to program Feature 30 to use this feature (e.g. to open a garage door using a 4 button keyfob, add a relay to the terminals).

Hills Reliance 12 (Only) Note: On the Hills Reliance 12, the AUX 4 terminal is used as SMOKE + for two-wire smoke detectors (see Feature 22). Or as Zone 7 for a four-wire smoke detector by default. <u>The function cannot be changed.</u>

Segments 1 – 4	Outputs 1 – 4
1	On if output should be timed in minutes; Off if timed in seconds
2	On if output should latch; Off if output should be timed
(3)	On if output should stop timing upon code entry; Off if output should follow timer
4	On if output should only activate between the closing and opening time in Features 33 and 34
5	On if output should only activate between the opening and closing time in Features 33 and 34
6	On if output should be inverted
7	Reserved
8	Reserved

Auxiliary Output 1 – 4 Logic new

The Hills Reliance 8 has 3 auxiliary outputs (Features 28, 29, 30), Reliance 12 and Reliance 128 have 4 auxiliary outputs (Features 28, 29, 30, 31).

Features 28, 29, 30 and 31 each set an auxiliary output (1, 2, 3, and 4 respectively) for the period of time in segment 4, based on the two events in segments 1 and 2, and the logic value set in segment 3.

The logic value is a set of rules that apply to both Event A and Event B that must be reached before the output will trigger. There are two rules to the logic and two states that the event can be in. The two rules are **'AND'** or **'OR'**. The **'AND'** rule is used when <u>both</u> events have to be active for the output to trigger the **"OR"** rule is used when <u>either</u> event is active for the output to trigger. The two states for the events are 'true' or 'false' (whether the event **is** currently active or whether the event is **not** currently active. Use the chart on the following page to select the logic value that will apply to the relevant Auxiliary Output.

Use the chart on the following page to select the events in segment 1 and 2 that will activate the relevant Auxiliary Output. Program the timing in segment 4, from 0-255 (minutes or seconds, depending on data programmed in Feature 27 – Seg 1). Programming a '0' makes the output follow the event.

Feature 28 new	Auxiliary Output 1 - Event and Time

Segments 1-4	Event A – 51 (strobe)	Event B – 53 (false) new	Logic – 0 (OR) new	Time – 0 new

Feature 29 new	Auxiliary Output 2 - Event and Time

Segments 1-4	Event A – 7 (siren)	Event B – 53 (false) new	Logic – 0 (OR) new	Time – 0 new

Feature 30 new	Auxiliary Output 3 - Event and Time

Segments 1-4	Event A – 23 (ready)	Event B – 53 (false) new	Logic – 0 (OR) new	Time – 0 new

Event A is 39 (smoke reset) on Reliance 8 that occurs when *7 is pressed on a code pad.

Feature 31 new	Auxiliary Output 4 - Event and Time

Segments 1-4	Event A – 21 (armed)	Event B – 53 (false) new	Logic – 0 (OR) new	Time – 0 new

Auxiliary Output Logic Selection new

Data	Logic
0	Event A **or** Event B
1	Event A **and** Event B
2	**Not** Event A **or** Event B
3	**Not** Event A **and** Event B
4	Event A **or Not** Event B
5	Event A **and Not** Event B
6	**Not** Event A **or Not** Event B
7	**Not** Event A **and Not** Event B

Auxiliary Output Event Selection

Data	Event	Data	Event
0	Burglary Alarm	28	Expander Trouble
1	Fire Alarm	29	Dynamic Battery Test Time
2	24 Hour Alarm	30	Open Period
3	Trouble Alarm	31	Closed Period
4	Tamper Alarm	32	Listen-In
5	Yelping Siren	33	Line Seizure
6	Steady Siren	34	Reserved
7	Any Siren	35	Fail To Communicate
8	Any Bypass	36	Telephone Line Fault
9	AC Fail	37	Program Mode
10	Low Battery	38	Download In Process
11	Duress	39	Smoke Reset (only for Reliance 8)
12	Aux 1 Code Pad Zone	40	Short Circuit
13	Aux 2 Code Pad Zone	41	Box Tamper
14	Panic Code Pad Zone	42	Siren Tamper
15	Code Pad Tamper	43	Any Open
16	Auto-test	44	Any Short
17	Alarm Memory	45	Any Fault (open/short on non-fire zone)
18	Entry	46	Any Alarm
19	Exit	47	Beeping Code Pad
20	Entry or Exit	48	Code Entry (see note below)
21	Armed State	49	ITI Keyfob Light Key (function 1)
22	Disarmed State	50	ITI Keyfob * Key (function 2)
23	Ready	51	Strobe
24	Not Ready	52 new	True (always on)
25	Fire	53 new	False (always off)
26	Fire Trouble	54 new	Door Unlocked
27	Chime	55 new	Access Alarm (e.g. see F68-Seg4-Op4)

Note: When event 48 is programmed, it is possible to program a user code's authorization to select which output(s) a particular code will activate. When LED 8 is on for an authorization, then LEDs 1- 4 correspond to that code activating outputs 1 - 4 respectively. Refer to the code pad programming section in this manual.

Feature 32 — Auto-Test Control

Segments 1-4	1	168	03	00
Segment 1	Program a '0' if the intervals are in hours. '1 - 8' if in days. **1 = SUN, 2=MON, 3=TUE, 4=WED, 5=THU, 6=FRI, 7 = SAT and 8 = DAILY**			
Segment 2	Program the Auto-test **hourly interval** from 1-255 hours, if Segment 1 is set to 0			
Segment 3	Program the Auto-test report **hour** in 24 hour format, ignored if Segment 1 is set to 0			
Segment 4	Program the Auto-test report time, number of **minutes** after the hour			

Feature 33 new — Opening Time / Auto Disarm Time

Segments 1-2	Hours – 08	Minutes – 00

Feature 33 determines the start of the Open Window (in 24 hour format) and the end of the Close Window. This is the time when the panel would normally be disarmed. If Auto Disarm is programmed then this is the time the panel will disarm the selected areas on those days programmed in Feature 35.

At this time it also enables codes with 'Arm Only After Close Window' authority to arm and disarm the panel.

Note: Opening time must be <u>earlier</u> than closing time for Aux. outputs, or Code Authorization to function properly.

Feature 34 — Closing Time / Auto-Arm Time

Segments 1-2	Hours – 20	Minutes – 00

Feature 34 determines the end of the Open Window (in 24 hour format) and the start of the Close Window. This is the time when the panel would normally be armed. If Auto-Arm is programmed then this is the time the panel will arm the selected areas. At this time, the Code Pad will beep for 50s before the panel arms. Stop/Delay the auto-arm for 45 minutes by entering a valid code on the Code Pad. See Feature 36.

At this time it also prevents codes with 'Arm Only After Close Window' authority from disarming the panel.

Note: Closing time must be <u>later</u> than opening time for Aux. outputs, or Code Authorization to function properly.

Feature 35 — Days Open / 'Arm Only After Close Window' Authority

Feature 35 selects which days of the week each area is open. Segment 1 is for area 1, and Segment 8 is for area 8. Together with F33 and F34, this determines the normal operating hours of the site also known as the Open Window, when each area would normally be disarmed. The period outside of this time and selected days is known as the Close Window when each area would normally be armed. If a day is not selected then that entire day will be in the Close Window. If Auto-Arm is programmed, the panel will attempt to arm specified areas during the Close Window. Also see F33, 34 and 36.

Also on these selected days, user codes with 'Arm Only After Close Window' authority will be able to arm and disarm during the Close Window. On days **not** selected here, codes with 'Arm Only After Close Window' authority will not disarm. Note that Feature 36 can re-arm an area even after a user disarms that area if it is during the Close Window.

Segments 1-8	Areas 1 – 8
(1)	'Arm only after close window' will arm/disarm on Sunday, and Area is open on Sunday
(2)	'Arm only after close window' will arm/disarm on Monday, and Area is open on Monday
(3)	'Arm only after close window' will arm/disarm on Tuesday, and Area is open on Tuesday
(4)	'Arm only after close window' will arm/disarm on Wednesday, and Area is open on Wednesday
(5)	'Arm only after close window' will arm/disarm on Thursday, and Area is open on Thursday
(6)	'Arm only after close window' will arm/disarm on Friday, and Area is open on Friday
(7)	'Arm only after close window' will arm/disarm on Saturday, and Area is open on Saturday
(8)	Reserved

Feature 36 new	Days of the Week for Auto-Arming in Areas 1 - 8

Feature 36 selects which days of the week each area will auto-arm. Segment 1 is for area 1, and Segment 8 is for area 8. Requires Features 33, 34 and 35 to be programmed to determine the Open Window.

If auto-arm is enabled, the panel will auto-arm the selected area at the Closing Time on the selected day. Note that there may be a few minutes of delay depending on the site and programming. If a zone is faulted when the panel tries to auto-arm, the zone will be bypassed. If disarmed during the Close Window, the panel will check every 45 min and try to re-arm and keep the area secure

Option 8 relates to a retry timer. If there are zones faulted after disarming during the Close Window, the panel will wait until there is **45 continuous minutes** of no activity (i.e. Ready status) then auto-arm. The retry timer is not adjustable. Enable option 8 to disable the retry timer, this will result in the panel arming after 45 min after disarming without waiting.

Users can stop/delay the auto-arm by entering their code during the exit time, no event log is recorded for the user code entered.

User 97 is reported for auto-arm.

The process is:
Closing Time → Auto-Arm and unsealed zones bypassed → Disarm → Check if within Close Window → If Retry Timer enabled, wait for 45 min continuous ready status → Else wait 45 min → Warning Time → Exit Time → Re-arm Area

Segments 1-8	Areas 1 – 8
1	Auto-Arming on Sunday
2	Auto-Arming on Monday
3	Auto-Arming on Tuesday
4	Auto-Arming on Wednesday
5	Auto-Arming on Thursday
6	Auto-Arming on Friday
7	Auto-Arming on Saturday
8 new	Disable Retry Timer (i.e. arm after 45 min regardless of activity)

Feature 37 new	Area 1 – Account Code

Segments 1-6	10	10	10	10	Reserved new	Reserved new

Feature 37 contains the account code sent when area 1 is reported. If Feature 37 is left as default (all ‘10’s), then the system account code (Feature 5) will be used.

Only available on Reliance 12 and Reliance 128.

Areas 2 – 8 Programming Options

Feature 38 new	Area 2 – Account Code

Segments 1-6	10	10	10	10	Reserved new	Reserved new

Feature 38 contains the account code sent when area 2 is reported. If Feature 38 is left as default (all ‘10’s), then the system account code (Feature 5) will be used.

Feature 39 new — Area 2 – Option and Report Selections

Feature 39 is used to enable certain options that can be accessed or are visible to the user from the code pad of the system. In addition, certain communicator reports are enabled. Each of these options can be enabled by area 2.

If the option selection feature for any area is left blank, that area will use Feature 16 for the option selection.

Segment 1	
1	On enables the Quick Arm option
2	On enables the Re-exit option
3	On enables the Force Arm option
4	On enables the Silent Code Pad Panic option
5	On enables the Audible Code Pad Panic option
6	On enables the Code Pad Fire option
7	On enables the Code Pad Medical option
8	On enables the Code Pad Multiple Code Attempt Tamper option
Segment 2	
1	On enables the LED Extinguish option.
2	On enables the Require Code for Bypassing option
3	On enables the Zone Bypassed Sounder Alert option
4	On enables the AC Power/Low Battery Sounder Alert option
5	On enables Bypass toggle
6	On enables Silent Auto-Arm
7	On enables the Universal Arming option
8	On enables the One Key Partial Mode Disarm
Segment 3	
1	On enables Opening and Closing reports
2	On enables Zone Bypass reporting
3	On enables Zone Restore reporting
4	On enables Zone Trouble reporting
5	On enables Zone Tamper reporting
6	On enables the Cancel option
7	On enables Recent Closing option
8	On enables Exit Error option
Segment 4 new	
1	On enables Late To Close (requires Feature 6 to be set to Contact ID)
2	On enables Auto-Arm In Partial
3	Reserved
4	On enables Disable Bypass For Force Arm Zones
5	Reserved
6	Reserved
7	Reserved
8	Reserved
Segment 5 new	
1	Reserved
2	Reserved
3	Reserved
4	Reserved
5	Reserved
6	Reserved
7	Reserved
8	Reserved

Feature 40 new — Area 2 – Entry / Exit Timers

	Entry Time 1	Exit Time 1	Entry Time 2	Exit Time 2	Reserved new	Reserved new
Segments 1-6	30	60	30	60		

Feature 40 sets the primary and secondary entry / exit times for area 2. If all segments in this feature are set to '0', the entry / exit time for this area will follow area 1 (Feature 17). Valid entries are 10-255 seconds.

Feature 41 new — Area 3 – Account Code

Segments 1-6	10	10	10	10	Reserved new	Reserved new

Feature 41 contains the account code sent when area 3 is reported. If Feature 41 is left un-programmed (all '10's), then the system account code (Feature 5) will be used.

Feature 42 — Area 3 – Option and Report Selections

Feature 42 is used to enable certain options that can be accessed or are visible to the user from the code pad of the system. In addition, certain communicator reports are enabled. Each of these options can be enabled by area 3.
If the option selection feature for any area is left blank, that area will use feature 16 for the option selection. Refer to Feature 39 in this section for options table.

Feature 43 new — Area 3 – Entry / Exit Timers

	Entry Time 1	Exit Time 1	Entry Time 2	Exit Time 2	Reserved new	Reserved new
Segments 1-6	30	60	30	60		

Feature 43 sets the primary and secondary entry / exit times for area 3. If all segments in this feature are set to '0', the entry / exit time for this area will follow area 1 (Feature 17). Valid entries are 10-255 seconds.

Feature 44 new — Area 4 – Account Code

Segments 1-6	10	10	10	10	Reserved new	Reserved new

Feature 44 contains the account code sent when area 4 is reported. If Feature 44 is left as default (all '10's), then the system account code (Feature 5) will be used.

Feature 45 — Area 4 – Option and Report Selections

Feature 45 is used to enable certain options that can be accessed or are visible to the user from the code pad of the system. In addition, certain communicator reports are enabled. Each of these options can be enabled by area 4.
If the option selection feature for any area is left blank, that area will use Feature 16 for the option selection. Refer to Feature 39 in this section for options table.

Feature 46 new — Area 4 – Entry / Exit Timers

	Entry Time 1	Exit Time 1	Entry Time 2	Exit Time 2	Reserved new	Reserved new
Segments 1-6	30	60	30	60		

Feature 46 sets the primary and secondary entry / exit times for area 4. If all segments in this feature are set to '0', the entry / exit time for this area will follow area 1 (Feature 17). Valid entries are 10-255 seconds

Feature 47 new — Area 5 – Account Code

Segments 1-6	10	10	10	10	Reserved new	Reserved new

Feature 47 contains the account code sent when area 5 is reported. If Feature 47 is left as default (all '10's), then the system account code (Feature 5) will be used.

Feature 48 — Area 5 – Option and Report Selections

Feature 48 is used to enable certain options that can be accessed or are visible to the user from the code pad of the system. In addition, certain communicator reports are enabled. Each of these options can be enabled by area 5.
If the option selection feature for any area is left blank, that area will use Feature 16 for the option selection. Refer to Feature 39 in this section for options table.

Feature 49 new — Area 5 – Entry / Exit Timers

	Entry Time 1	Exit Time 1	Entry Time 2	Exit Time 2	Reserved new	Reserved new
Segments 1-6	30	60	30	60		

Feature 49 sets the primary and secondary entry / exit times for area 5. If all segments in this feature are set to '0', the entry / exit time for this area will follow area 1 (Feature 17). Valid entries are 10-255 seconds

Feature 50 new — Area 6 – Account Code

Segments 1-6	10	10	10	10	Reserved new	Reserved new

Feature 50 contains the account code sent when area 6 is reported. If Feature 50 is left as default (all '10's), then the system account code (Feature 5) will be used.

Feature 51 — Area 6 – Option and Report Selections

Feature 51 is used to enable certain options that can be accessed or are visible to the user from the code pad of the system. In addition, certain communicator reports are enabled. Each of these options can be enabled by area 6.
If the option selection feature for any area is left blank, that area will use Feature 16 for the option selection. Refer to Feature 39 in this section for options table.

Feature 52 new — Area 6 – Entry / Exit Timers

	Entry Time 1	Exit Time 1	Entry Time 2	Exit Time 2	Reserved new	Reserved new
Segments 1-6	30	60	30	60		

Feature 52 sets the primary and secondary entry / exit times for area 6. If all segments in this feature are set to '0', the entry / exit time for this area will follow area 1 (Feature 17). Valid entries are 10-255 seconds

Feature 53 new — Area 7 – Account Code

Segments 1-6	10	10	10	10	Reserved new	Reserved new

Feature 53 contains the account code sent when area 7 is reported. If Feature 53 is left as default (all '10's), then the system account code (Feature 5) will be used.

Feature 54 — Area 7 – Option and Report Selections

Feature 54 is used to enable certain options that can be accessed or are visible to the user from the code pad of the system. In addition, certain communicator reports are enabled. Each of these options can be enabled by area 7.
If the option selection feature for any area is left blank, that area will use Feature 16 for the option selection. Refer to Feature 39 in this section for options table.

Feature 55 new — Area 7 – Entry / Exit Timers

	Entry Time 1	Exit Time 1	Entry Time 2	Exit Time 2	Reserved new	Reserved new
Segments 1-6	30	60	30	60		

Feature 55 sets the primary and secondary entry / exit times for area 7. If all segments in this Feature are set to '0', the entry / exit time for this area will follow area 1 (Feature 17). Valid entries are 10-255 seconds.

Feature 56 new	**Area 8 – Account Code**

Segments 1-6	10	10	10	10	Reserved new	Reserved new

Feature 56 contains the account code sent when area 8 is reported. If Feature 56 is left as default (all '10's), then the account code corresponding to the phone number dialled will be used.

Feature 57	**Area 8 – Option and Report Selections**

Feature 57 is used to enable certain options that can be accessed or are visible to the user from the code pad of the system. In addition, certain communicator reports are enabled. Each of these options can be enabled by area 8.
If the option selection feature for any area is left blank, that area will use Feature 16 for the option selection. Refer to Feature 39 in this section for options table.

Feature 58 new	**Area 8 – Entry / Exit Timers**

	Entry Time 1	Exit Time 1	Entry Time 2	Exit Time 2	Reserved new	Reserved new
Segments 1-6	30	60	30	60		

Feature 58 sets the primary and secondary entry / exit times for area 8. If all segments in this Feature are set to '0', the entry / exit time for this area will follow area 1 (Feature 17). Valid entries are 10-255 seconds.

Zones 17 – 48 Configuration

Feature 59	**Zones 17-24 Configuration Group**

Segments 1-8	16	16	16	16	16	16	16	16

Feature 59 contains the Configuration Group (zone type) for zones 17-24. Segment 1 is for zone 17, and Segment 8 is for zone 24.

Feature 60	**Zone Area Select - Zones 17-24**

Feature 60 is used to select the area(s) that zones 17-24 reside in. A zone may reside in any combination of the eight areas. If a burglary zone resides in more than one area, it will only be active when all areas are armed. A zone that resides in more than one area will be reported to its lowest area. Feature 60 has 8 segments. Segment 1 corresponds to zone 17 and Segment 8 corresponds to zone 24.

	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8
Segment 1 – Zone 17	(1)	2	3	4	5	6	7	8
Segment 2 – Zone 18	(1)	2	3	4	5	6	7	8
Segment 3 – Zone 19	(1)	2	3	4	5	6	7	8
Segment 4 – Zone 20	(1)	2	3	4	5	6	7	8
Segment 5 – Zone 21	(1)	2	3	4	5	6	7	8
Segment 6 – Zone 22	(1)	2	3	4	5	6	7	8
Segment 7 – Zone 23	(1)	2	3	4	5	6	7	8
Segment 8 – Zone 24	(1)	2	3	4	5	6	7	8

Feature 61	**Zones 25-32 Configuration Group**

Segments 1-8	16	16	16	16	16	16	16	16

Feature 61 contains the Configuration Group (zone type) for zones 25-32. Segment 1 is for zone 25, and Segment 8 is for zone 32.

Feature 62 — Zone Area Select - Zones 25-32

Feature 62 is used to select the area(s) that zones 25-32 reside in. A zone may reside in any combination of the eight areas. If a burglary zone resides in more than one area, it will only be active when all areas are armed. A zone that resides in more than one area will be reported to its lowest area. Feature 62 has 8 segments. Segment 1 corresponds to zone 25 and Segment 8 corresponds to zone 32.
Refer to Feature 60 in this section for the zone area select table.

Feature 63 — Zones 33-40 Configuration Group

Segments 1-8	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**

Feature 63 contains the Configuration Group (zone type) for zones 33-40. Segment 1 is for zone 33, and Segment 8 is for zone 40.

Feature 64 — Zone Area Select - Zones 33-40

Feature 64 is used to select the area(s) that zones 33-40 reside in. A zone may reside in any combination of the eight areas. If a burglary zone resides in more than one area, it will only be active when all areas are armed. A zone that resides in more than one area will be reported to its lowest area. Feature 64 has 8 segments. Segment 1 corresponds to zone 33 and Segment 8 corresponds to zone 40.
Refer to Feature 60 in this section for the zone area select table.

Feature 65 — Zones 41-48 Configuration Group

Segments 1-8	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**

Feature 65 contains the Configuration Group (zone type) for zones 41-48. Segment 1 is zone 41, and Segment 8 is zone 48.

Feature 66 — Zone Area Select - Zones 41-48

Feature 66 is used to select the area(s) that zones 41-48 reside in. A zone may reside in any combination of the eight areas. If a burglary zone resides in more than one area, it will only be active when all areas are armed. A zone that resides in more than one area will be reported to its lowest area. Feature 66 has 8 segments. Segment 1 corresponds to zone 41 and Segment 8 corresponds to zone 48.
Refer to Feature 60 in this section for the zone area select table.

Configuration Groups 1 – 20

Features 67-106 are used to change the zone configurations as listed in the Default Zone Configuration Table in zones 1 to 128 configuration section. These features are considered advanced programming and should only be changed with a thorough understanding of the operation of each bit.

Feature 67 — Configuration Group 1 Alarm Event Code

Segment 1	**3**

Feature 67 contains the Contact I.D. event code sent for zone configuration group 1 alarm reports. The desired event code should be chosen from the Contact I.D. Configuration Group Event Table in the Appendix section.

Feature 68 new — Configuration Group 1 Characteristic Select

Segment 1	
1	Fire (turn on if this is a fire zone)
2	24 hour (turn on for non-fire 24 hour zones)
3	Key-switch zone (normally open switch)
4	Follower (turn on for burglary zones that are Instant during non-entry times)
(5)	Delay 1 zone (follows timer 1 entry and exit times)
6	Delay 2 zone (follows timer 2 entry and exit times)
7	Reserved
8	Local only (turn on if this zone should not be reported)
Segment 2	
1	On if configuration group will beep the code pad for alarm
(2)	On if configuration group will sound the yelping siren for alarm
3	On if configuration group will sound the steady (temporal) siren for alarm
4	On if configuration group will chime
(5)	On if configuration group can be bypassed
6	On if configuration group is included in the Group Bypass
(7)	On if configuration group is Force Arm
(8)	On if configuration group is Active in Partial Mode
Segment 3	
1	Reserved
(2)	On enables Double End Of Line (DEOL) Tamper Zone
3	On enables Trouble Reporting zone (Day Zones and Fire Zones)
4	On if configuration group is a Twin Trip Zone
(5)	On enables Dialer Delay Zone
(6)	On if configuration group will siren / communicator attempt count
(7)	On enables Restore reporting
(8) new	Reserved
Segment 4 new	
1 new	Zone Activity Monitor (also see F25 – Seg 11 – Opt 11 and F22 – Seg 6 – Opt 3 to the set timer, and Zone Tamper Reporting must also be enabled in F9 – Seg 1 – Opt 7)
2 new	EOL Resistor Defeat (if enabled, a short = seal, open circuit = unseal)
3 new	Request To Exit (REX button) (triggers Request To Exit event for NX508E Output Expander board)
4 new	Access Control (applies to NX1701EAU reader, triggers DOTL and Forced Door access violations for NX508E Output Expander board)
5 new	Reserved
6 new	Reserved
7 new	Reserved
8 new	Reserved
Segment 5 new	
1 new	Reserved
2 new	Reserved
3 new	Reserved
4 new	Reserved
5 new	Reserved
6 new	Reserved
7 new	Reserved
8 new	Reserved

Feature 69	Configuration Group 2 Alarm Event Code

Segment 1	3

Feature 69 contains the Contact I.D. event code sent for zone configuration group 2 alarm reports. The desired event code should be chosen from the Contact I.D. Configuration Group Event Table in the Appendix section.

Feature 70 new	Configuration Group 2 Characteristic Select

Seg 1	5	Seg 2	2457	Seg 3	25678	Seg 4 new		Seg 5 new	

Use 'Configuration Group Characteristic table' described in Feature 68, of this section.

Feature 71	Configuration Group 3 Alarm Event Code

Segment 1	3

Feature 71 contains the Contact I.D. event code sent for zone configuration group 3 alarm reports. The desired event code should be chosen from the Contact I.D. Configuration Group Event Table in the Appendix section.

Feature 72 new	Configuration Group 3 Characteristic Select

Seg 1	5	Seg 2	24578	Seg 3	25678	Seg 4 new		Seg 5 new	

Use 'Configuration Group Characteristic table' described in Feature 68, of this section.

Feature 73	Configuration Group 4 Alarm Event Code

Segment 1	3

Feature 73 contains the Contact I.D. event code sent for zone configuration group 4 alarm reports. The desired event code should be chosen from the Contact I.D. Configuration Group Event Table in the Appendix section.

Feature 74 new	Configuration Group 4 Characteristic Select

Seg 1	6	Seg 2	2578	Seg 3	25678	Seg 4 new		Seg 5 new	

Use 'Configuration Group Characteristic table' described in Feature 68, of this section.

Feature 75	Configuration Group 5 Alarm Event Code

Segment 1	3

Feature 75 contains the Contact I.D. event code sent for zone configuration group 5 alarm reports. The desired event code should be chosen from the Contact I.D. Configuration Group Event Table in the Appendix section.

Feature 76 new	Configuration Group 5 Characteristic Select

Seg 1	6	Seg 2	24578	Seg 3	25678	Seg 4 new		Seg 5 new	

Use 'Configuration Group Characteristic table' described in Feature 68, of this section.

Feature 77	Configuration Group 6 Alarm Event Code

Segment 1	3

Feature 77 contains the Contact I.D. event code sent for zone configuration group 6 alarm reports. The desired event code should be chosen from the Contact I.D. Configuration Group Event Table in the Appendix section.

Feature 78 new	Configuration Group 6 Characteristic Select

Seg 1	4	Seg 2	257	Seg 3	25678	Seg 4 new		Seg 5 new	

Use ‘Configuration Group Characteristic table’ described in Feature 68, of this section.

Feature 79	Configuration Group 7 Alarm Event Code

Segment 1	3

Feature 79 contains the Contact I.D. event code sent for zone configuration group 7 alarm reports. The desired event code should be chosen from the Contact I.D. Configuration Group Event Table in the Appendix section.

Feature 80 new	Configuration Group 7 Characteristic Select

Seg 1	4	Seg 2	2578	Seg 3	25678	Seg 4 new		Seg 5 new	

Use ‘Configuration Group Characteristic table’ described in Feature 68, of this section.

Feature 81	Configuration Group 8 Alarm Event Code

Segment 1	3

Feature 81 contains the Contact I.D. event code sent for zone configuration group 8 alarm reports. The desired event code should be chosen from the Contact I.D. Configuration Group Event Table in the Appendix section.

Feature 82 new	Configuration Group 8 Characteristic Select

Seg 1	4	Seg 2	257	Seg 3	245678	Seg 4 new		Seg 5 new	

Use ‘Configuration Group Characteristic table’ described in Feature 68, of this section.

Feature 83	Configuration Group 9 Alarm Event Code

Segment 1	3

Feature 83 contains the Contact I.D. event code sent for zone configuration group 9 alarm reports. The desired event code should be chosen from the Contact I.D. Configuration Group Event Table in the Appendix section.

Feature 84 new	Configuration Group 9 Characteristic Select

Seg 1	4	Seg 2	2567	Seg 3	25678	Seg 4 new		Seg 5 new	

Use ‘Configuration Group Characteristic table’ described in Feature 68, of this section.

Feature 85	Configuration Group 10 Alarm Event Code

Segment 1	3

Feature 85 contains the Contact I.D. event code sent for zone configuration group 10 alarm reports. The desired event code should be chosen from the Contact I.D. Configuration Group Event Table in the Appendix section.

Feature 86 new	Configuration Group 10 Characteristic Select

Seg 1	4	Seg 2	2457	Seg 3	245678	Seg 4 new		Seg 5 new	

Use ‘Configuration Group Characteristic table’ described in Feature 68, of this section.

Feature 87 — Configuration Group 11 Alarm Event Code

Segment 1	3

Feature 87 contains the Contact I.D. event code sent for zone configuration group 11 alarm reports. The desired event code should be chosen from the Contact I.D. Configuration Group Event Table in the Appendix section.

Feature 88 new — Configuration Group 11 Characteristic Select

Seg 1	4	Seg 2	2578	Seg 3	245678	Seg 4 new		Seg 5 new	

Use 'Configuration Group Characteristic table' described in Feature 68, of this section.

Feature 89 — Configuration Group 12 Alarm Event Code

Segment 1	3

Feature 89 contains the Contact I.D. event code sent for zone configuration group 12 alarm reports. The desired event code should be chosen from the Contact I.D. Configuration Group Event Table in the Appendix section.

Feature 90 new — Configuration Group 12 Characteristic Select

Seg 1	4	Seg 2	25678	Seg 3	25678	Seg 4 new		Seg 5 new	

Use 'Configuration Group Characteristic table' described in Feature 68, of this section.

Feature 91 — Configuration Group 13 Alarm Event Code

Segment 1	3

Feature 91 contains the Contact I.D. event code sent for zone configuration group 13 alarm reports. The desired event code should be chosen from the Contact I.D. Configuration Group Event Table in the Appendix section.

Feature 92 new — Configuration Group 13 Characteristic Select

Seg 1	4	Seg 2	2567	Seg 3	245678	Seg 4 new		Seg 5 new	

Use 'Configuration Group Characteristic table' described in Feature 68, of this section.

Feature 93 — Configuration Group 14 Alarm Event Code

Segment 1	3

Feature 93 contains the Contact I.D. event code sent for zone configuration group 14 alarm reports. The desired event code should be chosen from the Contact I.D. Configuration Group Event Table in the Appendix section.

Feature 94 new — Configuration Group 14 Characteristic Select

Seg 1	4	Seg 2	25678	Seg 3	245678	Seg 4 new		Seg 5 new	

Use 'Configuration Group Characteristic table' described in Feature 68, of this section.

Feature 95 — Configuration Group 15 Alarm Event Code

Segment 1	3

Feature 95 contains the Contact I.D. event code sent for zone configuration group 15 alarm reports. The desired event code should be chosen from the Contact I.D. Configuration Group Event Table in the Appendix section.

Feature 96 new	Configuration Group 15 Characteristic Select

Seg 1		Seg 2	25	Seg 3	25678	Seg 4 new		Seg 5 new	

Use 'Configuration Group Characteristic table' described in Feature 68, of this section.

Feature 97	Configuration Group 16 Alarm Event Code

Segment 1	3

Feature 97 contains the Contact I.D. event code sent for zone configuration group 16 alarm reports. The desired event code should be chosen from the Contact I.D. Configuration Group Event Table in the Appendix section.

Feature 98 new	Configuration Group 16 Characteristic Select

Seg 1		Seg 2	258	Seg 3	25678	Seg 4 new		Seg 5 new	

Use 'Configuration Group Characteristic table' described in Feature 68, of this section.

Feature 99	Configuration Group 17 Alarm Event Code

Segment 1	3

Feature 99 contains the Contact I.D. event code sent for zone configuration group 17 alarm reports. The desired event code should be chosen from the Contact I.D. Configuration Group Event Table in the Appendix section.

Feature 100 new	Configuration Group 17 Characteristic Select

Seg 1		Seg 2	258	Seg 3	5678	Seg 4 new		Seg 5 new	

Use 'Configuration Group Characteristic table' described in Feature 68, of this section.

Feature 101	Configuration Group 18 Alarm Event Code

Segment 1	3

Feature 101 contains the Contact I.D. event code sent for zone configuration group 18 alarm reports. The desired event code should be chosen from the Contact I.D. Configuration Group Event Table in the Appendix section.

Feature 102 new	Configuration Group 18 Characteristic Select

Seg 1		Seg 2	257	Seg 3	245678	Seg 4 new		Seg 5 new	

Use 'Configuration Group Characteristic table' described in Feature 68, of this section.

Feature 103	Configuration Group 19 Alarm Event Code

Segment 1	3

Feature 103 contains the Contact I.D. event code sent for zone configuration group 19 alarm reports. The desired event code should be chosen from the Contact I.D. Configuration Group Event Table in the Appendix section.

Feature 104 new	Configuration Group 19 Characteristic Select

Seg 1		Seg 2	256	Seg 3	25678	Seg 4 new		Seg 5 new	

Use 'Configuration Group Characteristic table' described in Feature 68, of this section.

Feature 105	Configuration Group 20 Alarm Event Code

Segment 1	3

Feature 105 contains the Contact I.D. event code sent for zone configuration group 20 alarm reports. The desired event code should be chosen from the Contact I.D. Configuration Group Event Table in the Appendix section.

Feature 106 new	Configuration Group 20 Characteristic Select

Seg 1		Seg 2	2458	Seg 3	25678	Seg 4 new		Seg 5 new	

Use 'Configuration Group Characteristic table' described in Feature 68, of this section.

Zones 49 – 128 Configuration new

Feature 119 new	Zones 49-56 Configuration Group

Segments 1-8	16	16	16	16	16	16	16	16

Feature 119 contains the Configuration Group (zone type) for zones 49-56. Segment 1 is for zone 49, and Segment 8 is for zone 56.

Feature 120 new	Zone Area Select - Zones 49-56

Feature 120 is used to select the area(s) that zones 49-56 reside in. A zone may reside in any combination of the eight areas. If a burglary zone resides in more than one area, it will only be active when all areas are armed. A zone that resides in more than one area will be reported to its lowest area. Feature 120 has 8 segments. Segment 1 corresponds to zone 49 and Segment 8 corresponds to zone 56.
Refer to Feature 60 for the zone area select table.

Feature 121 new	Zones 57-64 Configuration Group

Segments 1-8	16	16	16	16	16	16	16	16

Feature 121 contains the Configuration Group (zone type) for zones 57-64. Segment 1 is for zone 57, and Segment 8 is for zone 64.

Feature 122 new	Zone Area Select - Zones 57-64

Feature 122 is used to select the area(s) that zones 57-64 reside in. A zone may reside in any combination of the eight areas. If a burglary zone resides in more than one area, it will only be active when all areas are armed. A zone that resides in more than one area will be reported to its lowest area. Feature 122 has 8 segments. Segment 1 corresponds to zone 57 and Segment 8 corresponds to zone 64.
Refer to Feature 60 for the zone area select table.

Feature 123 new	Zones 65-72 Configuration Group

Segments 1-8	16	16	16	16	16	16	16	16

Feature 123 contains the Configuration Group (zone type) for zones 65-72. Segment 1 is for zone 65, and Segment 8 is for zone 72.

Feature 124 new	Zone Area Select - Zones 65-72

Feature 124 is used to select the area(s) that zones 65-72 reside in. A zone may reside in any combination of the eight areas. If a burglary zone resides in more than one area, it will only be active when all areas are armed. A zone that resides in more than one area will be reported to its lowest area.
Refer to Feature 60 for the zone area select table.

Feature 125 new	Zones 73-80 Configuration Group

Segments 1-8	16	16	16	16	16	16	16	16

Feature 125 contains the Configuration Group (zone type) for zones 73-80. Segment 1 is for zone 73, and Segment 8 is for zone 80.

Feature 126 new	Zone Area Select - Zones 73-80

Feature 126 is used to select the area(s) that zones 73-80 reside in. A zone may reside in any combination of the eight areas. If a burglary zone resides in more than one area, it will only be active when all areas are armed. A zone that resides in more than one area will be reported to its lowest area.
Refer to Feature 60 for the zone area select table.

Feature 127 new	Zones 81-88 Configuration Group

Segments 1-8	16	16	16	16	16	16	16	16

Feature 127 contains the Configuration Group (zone type) for zones 81-88. Segment 1 is for zone 81, and Segment 8 is for zone 88.

Feature 128 new	Zone Area Select - Zones 81-88

Feature 128 is used to select the area(s) that zones 81-88 reside in. A zone may reside in any combination of the eight areas. If a burglary zone resides in more than one area, it will only be active when all areas are armed. A zone that resides in more than one area will be reported to its lowest area.
Refer to Feature 60 for the zone area select table.

Feature 129 new	Zones 89-96 Configuration Group

Segments 1-8	16	16	16	16	16	16	16	16

Feature 129 contains the Configuration Group (zone type) for zones 89-96. Segment 1 is for zone 89, and Segment 8 is for zone 96.

Feature 130 new	Zone Area Select - Zones 89-96

Feature 130 is used to select the area(s) that zones 89-96 reside in. A zone may reside in any combination of the eight areas. If a burglary zone resides in more than one area, it will only be active when all areas are armed. A zone that resides in more than one area will be reported to its lowest area.
Refer to Feature 60 for the zone area select table.

Feature 131 new	Zones 97-104 Configuration Group

Segments 1-8	16	16	16	16	16	16	16	16

Feature 131 contains the Configuration Group (zone type) for zones 97-104. Segment 1 is for zone 97, and Segment 8 is for zone 104.

Feature 132 new	Zone Area Select - Zones 97-104

Feature 132 is used to select the area(s) that zones 97-104 reside in. A zone may reside in any combination of the eight areas. If a burglary zone resides in more than one area, it will only be active when all areas are armed. A zone that resides in more than one area will be reported to its lowest area.
Refer to Feature 60 for the zone area select table.

Feature 133 new — Zones 105-112 Configuration Group

Segments 1-8	16	16	16	16	16	16	16	16

Feature 133 contains the Configuration Group (zone type) for zones 105-112. Segment 1 is for zone 105, and Segment 8 is for zone 112.

Feature 134 new — Zone Area Select - Zones 105-112

Feature 134 is used to select the area(s) that zones 105-112 reside in. A zone may reside in any combination of the eight areas. If a burglary zone resides in more than one area, it will only be active when all areas are armed. A zone that resides in more than one area will be reported to its lowest area.
Refer to Feature 60 for the zone area select table.

Feature 135 new — Zones 113-120 Configuration Group

Segments 1-8	16	16	16	16	16	16	16	16

Feature 135 contains the Configuration Group (zone type) for zones 113-120. Segment 1 is for zone 113, and Segment 8 is for zone 120.

Feature 136 new — Zone Area Select - Zones 113-120

Feature 136 is used to select the area(s) that zones 113-120 reside in. A zone may reside in any combination of the eight areas. If a burglary zone resides in more than one area, it will only be active when all areas are armed. A zone that resides in more than one area will be reported to its lowest area.
Refer to Feature 60 for the zone area select table.

Feature 137 new — Zones 121-128 Configuration Group

Segments 1-8	16	16	16	16	16	16	16	16

Feature 137 contains the Configuration Group (zone type) for zones 121-128. Segment 1 is for zone 121, and Segment 8 is for zone 128.

Feature 138 new — Zone Area Select - Zones 121-128

Feature 138 is used to select the area(s) that zones 121-128 reside in. A zone may reside in any combination of the eight areas. If a burglary zone resides in more than one area, it will only be active when all areas are armed. A zone that resides in more than one area will be reported to its lowest area.
Refer to Feature 60 for the zone area select table.

Feature 155 new — Days of the Week for Auto Disarm Areas 1 - 8

Feature 36 selects which days of the week each area will auto disarm at the Opening Time. Segment 1 is for area 1, and Segment 8 is for area 8.

Use this feature with caution, ensure you have programmed the Open Window correctly (Feature 33, 34, 35).

Segments 1-8	Areas 1 – 8
1	Auto Disarming on Sunday
2	Auto Disarming on Monday
3	Auto Disarming on Tuesday
4	Auto Disarming on Wednesday
5	Auto Disarming on Thursday
6	Auto Disarming on Friday
7	Auto Disarming on Saturday
8	Reserved

Feature 162 new — EOL Resistor Value Select

Segment 1	0

Feature 162 is used to select the value of resistor that is used as the End Of Line monitoring for the zones. Only applies to hardwire zones on main panel (address 0). **Note that this feature does not work when the panel has zone doubling enabled and does not apply to zone expanders.**

Data	EOL Resistor Value
0	3K3
1	1K5
2	2K2
3	3K9
4	4K7
5	5K6
6	6K8

Appendix 1: Reporting Zone Codes in Contact I.D.

The Hills Reliance control panel has the ability to report Ademco Contact I.D. transmissions. Each report in Contact I.D. consists of an event code and the zone I.D. generating the alarm. The event code will come from the chart below and be programmed in the configuration group event code.

Programmed Event Code	Contact I.D. Code	Description
0	122	Silent Panic
1	110	Fire Alarm
2	120	Panic Alarm
3	130	Burglary Alarm
4	131	Perimeter Alarm
5	132	Interior Alarm
6	133	24 Hour Burglary
7	134	Entry Alarm
8	135	Day/Night Alarm
9	150	Non Burglary 24 Hour
10	121	Duress Alarm
11	100	Medical Alarm
12	123	Audible Panic Alarm
13	137	Tamper Alarm
14	602	Periodic Test
15	151	Gas Detected
16	158	High Temp
17	154	Water Leakage
18	140	General Alarm
19	140	General Alarm
20	159	Low Temp

Appendix 2: Reporting Fixed Codes in Contact I.D.

The table below lists the CID event codes sent for the following reports (if enabled). The number in *brackets* following the event is the number that will be reported as the zone number if extended Contact I.D. is enabled in the system options. Otherwise zone ‘0’ will always be reported. If there are no parentheses, the zone will be reported as ‘0’.

Report	**Contact I.D. Event**
Manual Test	601
Auto test Open *(user number)*	602
Close *(user number)*	401
Cancel *(user number)*	406
Download Complete	412
Start Program	627
End Program	628
Ground Fault	310
Ground Fault Restore	310
Recent Close *(user number)*	401
Exit Error *(user number)*	457
Event Log Full	605
Fail To Communicate	354
Expander Trouble	333
Expander Restore	333
Telephone Fault	351
Telephone Restore	351
Siren Tamper	321
Siren Restore	321
Aux Power Over Current	312
Aux Power Restore	312
Low Battery	309
Low Battery Restore	309
AC Fail	301
AC Restore	301
Box Tamper	137
Box Tamper Restore	137
Code Pad Tamper	137
Code Pad Panic	120
Duress	121
Code Pad Fire	110
Code Pad Medical	100
RF Sensor Lost *(zone number)*	381
RF Sensor Restore *(zone number)*	381
Sensor Low Battery *(zone number)*	384
Sensor Battery Restore *(zone number)*	384
Zone Trouble *(zone number)*	380
Zone Trouble Restore *(zone number)*	380
Zone Tamper *(zone number)*	137
Zone Tamper Restore *(zone number)*	137
Zone Bypass *(zone number)*	570
Bypass Restore *(zone number)*	570
Zone Inactivity	391 **new**
Late To Close	454 **new**
Forced Door	423 **new**

Appendix 3: Expander Numbers for Reporting Expander Trouble

The tables below list the device numbers that will be reported for each expander/code pad that has a trouble condition if expanded Contact I.D. is enabled system options.

Code Pads Module Number Table								
Code Pad	**Area 1**	**Area 2**	**Area 3**	**Area 4**	**Area 5**	**Area 6**	**Area 7**	**Area 8**
1	192	193	194	195	196	197	198	199
2	200	201	202	203	204	205	206	207
3	208	209	210	211	212	213	214	215
4	216	217	218	219	220	221	222	223
5	224	225	226	227	228	229	230	231
6	232	233	234	235	236	237	238	239
7	240	241	242	243	244	245	246	247
8	248	249	250	251	252	253	254	255

NX-216 Zone Expanders Note: Must power down before changing address/starting zone number							
	Module Number Reported	**Starting Zone Number**	**Switch 1**	**Switch 2**	**Switch 3**	**Switch 4**	
1st	23	9	ON	OFF	OFF	When set ON, disables upper 8 zones on NX-216 module	
2nd	16	17	OFF	ON	OFF		
3rd	17	25	ON	ON	OFF		
4th	18	33	OFF	OFF	ON		
5th	19	41	ON	OFF	ON		

NX-216E Zone Expanders new Note: Must power down before changing address/starting zone number								
	Module Number Reported	**Starting Zone Number**	**Switch 1**	**Switch 2**	**Switch 3**	**Switch 4**	**Switch 5**	**Switch 6**
1st	22	1	OFF	OFF	OFF	OFF	OFF	When set ON, disables upper 8 zones on NX-216E module
2nd	23	9	ON	OFF	OFF	OFF	OFF	
3rd	16	17	OFF	ON	OFF	OFF	OFF	
4th	17	25	ON	ON	OFF	OFF	OFF	
5th	18	33	OFF	OFF	ON	OFF	OFF	
6th	19	41	ON	OFF	ON	OFF	OFF	
7th	20	49	OFF	ON	ON	OFF	OFF	
8th	21	57	ON	ON	ON	OFF	OFF	
9th	96	65	OFF	OFF	OFF	ON	OFF	
10th	97	73	ON	OFF	OFF	ON	OFF	
11th	98	81	OFF	ON	OFF	ON	OFF	
12th	99	89	ON	ON	OFF	ON	OFF	
13th	100	97	OFF	OFF	ON	ON	OFF	
14th	101	105	ON	OFF	ON	ON	OFF	
15th	102	113	OFF	ON	ON	ON	OFF	
16th	103	121	ON	ON	ON	ON	OFF	

NX-408E / NX-416E / NX-448E Wireless Receiver Address Settings					
	Module Number Reported	Switch 1	Switch 2	Switch 3	Switch 4
1st	32	ON	OFF	ON	OFF
2nd	33	OFF	ON	ON	OFF
3rd	34	ON	ON	ON	OFF
4th	35	OFF	OFF	OFF	OFF
5th	36	ON	OFF	OFF	OFF
6th	37	OFF	ON	OFF	OFF
7th	38	ON	ON	OFF	OFF
8th	39	OFF	OFF	ON	OFF

NX-507E / NX-508E Relay / Output Expanders						
	Module Number Reported	Switch 1	Switch 2	Switch 3	Switch 4	
1st	24	ON	ON	OFF	When set to OFF disables tamper feature	Max no. of NX-507E / NX-508E modules supported Reliance 8 = 3 Reliance 12\128 = 8
2nd	25	OFF	OFF	ON		
3rd	26	ON	OFF	ON		
4th	27	OFF	ON	ON		
5th	28	ON	ON	ON		
6th	29	OFF	OFF	OFF		
7th	30	ON	OFF	OFF		
8th	31	OFF	ON	OFF		

NX-320 Remote Power Supply				
	Module Number Reported	Switch 1	Switch 2	Switch 3
1st	84	OFF	OFF	OFF
2nd	85	ON	OFF	OFF
3rd	86	OFF	ON	OFF
4th	87	ON	ON	OFF
5th	88	OFF	OFF	ON
6th	89	ON	OFF	ON
7th	90	OFF	ON	ON
8th	91	ON	ON	ON

Recommendation

It is highly advised to disconnect all power (incl backup battery) from the panel before connecting new expander modules, on power up the control panel will enrol modules. Next enter program mode and default the new module: [✱] 8 [Program Code] [Module Number] # 9 1 0 # [Exit] [Exit] [Wait 10 seconds] the module is now ready to be used/programmed.

Appendix 4: Troubleshooting System Problems

Device	Problem	Remedy
Code Pad		
	Code pad appears dead - no lights or sounds when keys are pressed.	
		1. Measure the output voltage at the Aux Pwr (+) terminals. Voltage should be above 12.8 volt dc. 2. Disconnect all devices connected to Aux Pwr (+) terminal leaving only the code pad connected. 3. Check for short circuits on devices connected to Aux Pwr (+) terminals. 4. Check that AC power and battery are correctly connected to panel. 5. Check wiring and connections at code pad & panel.
	Code pad lights appear OK, but no functions when the keys are pressed.	
		1. Check the user code you are entering is programmed on the system and is an Arm/Disarm code. 2. Check the code pad No and Area No are set correctly. That is feature ✱ 94 in section "Programming the code pad".
	Code pad jumps to area 2, chime turns off, or case tamper comes on by itself.	
		1. Check the code pad and expanders are new "E" versions (e.g. NX-216E, NX-148E).
	Fire LED flashes rapidly.	
		1. Measure Aux Pwr (+) terminal. Voltage should be above 12.8 Volt DC. 2. Check Data wire is connected correctly at both ends. 3. Smoke detector circuit may have gone into alarm. Press ✱ 7 to reset. 4. Try connecting code pads one at a time and see if problem is related to a particular code pad.
	After exiting from program mode code pad will not accept key presses.	
		1. Wait 12 seconds after leaving program mode before entering key presses at the code pad. The panel is enrolling all devices.
	Unable to write custom messages to multiple LCD code pads on system.	
		1. Ensure you have individually set the code pad No(s) and Area No(s) for each code pad. That is feature ✱ 94 in section Programming the Code Pad. 2. Enter and then exit program mode to enrol code pads. 3. Program custom messages on code pad 1. 4. Or enter Custom Messages menu, view any message and then exit. See feature ✱ 92 in the NX-148E LCD Code Pad installation manual.
	Zones LED(s) flash rapidly, Arming and Disarming will not clear condition.	
		1. A zone tamper condition has occurred. 2. Press ✱ 7 to reset condition and clear rapid flashing LED's. 3. If the zone is still in tamper the ✱ 7 will only clear the condition temporarily.
	Starts beeping and you must enter a code to stop the beeps.	
		1. There is a system fault present. Press ✱ 2 to see why the system started beeping.

System

Service Light "ON" - Pressing ⋆ 2 displays LED 1.

Press the (1) key and observe which LED comes on to indicate one of the following:

1. Over Current Fault

A partial short-circuit on the Aux Pwr, Smoke power, Horn Speaker, Strobe or Screamer will cause over current faults. Removing the short from the Aux Pwr or Smoke Pwr will fix the over current condition. If the short is on the horn, Strobe or Screamer you must put the panel into alarm once the fault has been removed to clear the over current condition.

On the Reliance 8 and 12 power will be restored on fixing the condition. On the Reliance 128 power will be restored when the thermistor resets (fuseless design).

Note if a severe short circuit is present it may exceed the protection available and output power will not be restored.

2. Siren Trouble

The Horn Speaker is open / short circuit or not connected.

The Hills Reliance control panel monitors the siren output for faults and tampering. If a horn speaker is not connected to the panel place a 3K3 resistor across the Bell output to disable Siren Trouble Monitoring.

3. Box Tamper

The box tamper pins are open circuit or activated. Ensure the box tamper pins are sealed (closed circuit). Arm and Disarm system to clear box tamper condition.

4. Expander Power

An expander connected to the system has a short circuit on the Aux output. Expander that can report this condition are power supply (NX320).

5. Expander Low Battery

An expansion device connected to the Hills Reliance system has a Low Battery condition. Expander that can indicate low battery conditions: NX320 power supply. Replace Battery.

6. Expander Box Tamper

An expansion device connected to the Hills Reliance system has a tamper activated. Check the tamper contacts on the expansion devices connected.

Expanders that can indicate box tamper**:** Code pads, Hardwire zone expanders and Wireless zone expanders.

7. Expander Trouble

Code pads are not number correctly (see ⋆ 94 code pad program).

Expander connected is not seen by system. Enter and Exit program mode.

You are trying to zone double a NX4 panel (not supported).
Only the Hills Reliance 8, Reliance 12, and Reliance 128 can be zone doubled.

Any device connected to the data terminal on the Hills Reliance system can cause an expander trouble condition.

8. Reserved

System

Service Light "ON" - Pressing ⋆ 2 displays LED 2.

Zone Tamper has been activated. Press the (2) key and the zone(s) that activated the tamper will be displayed. Press the (#) key twice to exit. Press ⋆ 7 is reset tamper condition.

Service Light "ON" - Pressing ⋆ 2 displays LED 3.

Low Battery (wireless zones only). Press the (3) key and the wireless zone(s) with low battery will be displayed. Press the (#) key twice to exit.

System

Service Light "ON" - Pressing ⋆ 2 displays LED 4.

Loss of Supervision (wireless zone only). Press the (4) key and the wireless zone(s) with Loss of Supervision will be displayed. Press the (#) key twice to exit.

Service Light "ON" - Pressing ⋆ 2 displays LED 5.

Zone Trouble. Press the (5) key and the zone that has trouble will be displayed. Zone trouble only applies to Fire type zones. Press the (#) key twice to exit. Press ⋆ 7 to reset zone trouble condition.

Service Light "ON" - Pressing ⋆ 2 displays LED 6.

Telephone line trouble/Line cut, when telephone line is cut from panel.

Service Light "ON" - Pressing ⋆ 2 displays LED 7.

When light number 7 is lit this indicates that the panel has failed to communicate to the base station. This led can only be extinguished by communicating to the base.

Check Phone No, Account Code and Format programming.

Press the (#) key twice to exit.

Service Light "ON" - Pressing ⋆ 2 displays LED 8.

When light 8 is lit this indicates that the panel has lost time. Press the (#) key twice to exit.

To set system time:
⋆ 97 (go to program code), enter time (4 digits) Eg 10:30am = 1030

Installation Floor Plan

Instructions

1. Sketch the layout of the building using the grid to scale dimensions
2. Identify the position of the control panel, sirens and code pads
3. Identify the location of all detectors and verify device coverage with device specifications
4. Plan models and quantities of hardware on the table below

Installation Parts List

Device	Model / Quantity	Device	Model / Quantity
Control Panel		Code Pads (VN)	
Siren (Internal)		Code Pads (LED)	
Siren (External)		Code Pads (LCD)	
Strobe		Code Pads (Icon)	
PIRs		7 Relay Module	
Reed switches		8 Output Module	
Detector cable		16 Zone Expander	
Data cable		Smoke Alarms	
Battery		Wireless Receiver	
Power Supply		Key Fobs	
Smart Power Supply			

Program Planning Sheets

Feat. 0 — User Code Requirements — Pg 23

Segment 1

1. Enables 6 digit code. All Arm/Disarm/Go to Program codes require 6 digits
2. Requires valid user code entry for [*][9][8] and [*][9][9] functions to work

3 to 8 Reserved

Feat. 1 — Go To Program Code — Pg 23

9	7	1	3	0	0

Feat. 2 — Go To Program Code Area and Authorisation — Pg 23

Segment 1

1. Reserved
2. On enables 'Go To Program Code' as an Arm Only code
3. On enables 'Go To Program Code' as an Arm Only after closing
4. **On enables 'Go To Program Code' as a Master code (can change user codes)**
5. On enables 'Go To Program Code' as an Arm/Disarm code
6. On enables 'Go To Program Code' to bypass zones
7. On enables 'Go To Program Code' opening and closing reports
8. Reserved

Segment 2

1. **On enables the 'Go To Program Code' for area #1**
2. **On enables the 'Go To Program Code' for area #2**
3. **On enables the 'Go To Program Code' for area #3**
4. **On enables the 'Go To Program Code' for area #4**
5. **On enables the 'Go To Program Code' for area #5**
6. **On enables the 'Go To Program Code' for area #6**
7. **On enables the 'Go To Program Code' for area #7**
8. **On enables the 'Go To Program Code' for area #8**

Feat. 3 — Duress Code — Pg 23

15	15	15	15	15	15

Feat. 4 — Phone # 1 — Pg 24

14	14	14	14	14	14	14	14	14	14
14	14	14	14	14	14	14	14	14	14

Feat. 5 — System Account Code — Pg 24

10	10	10	10	10	10

Feat. 6 — Communicator Format — Pg 24

0

Feat. 7 — Phone # 2 — Pg 24

14	14	14	14	14	14	14	14	14	14
14	14	14	14	14	14	14	14	14	14

Feat. 8 — Phone # 3 — Pg 25

14	14	14	14	14	14	14	14	14	14
14	14	14	14	14	14	14	14	14	14

Feat. 9 — Event Report Summary — Pg 25

Segment 1

- **1** Alarms
- **2** Alarm Restores
- 3 Opening / Closing (alarm system off = Open, alarm system on = Close)
- **4** Bypass and Bypass Restore
- 5 Zone Trouble and Restore
- **6** Power Trouble (AC Failure or Low Battery) and Restore
- 7 Zone and Box Tampers and Restore
- **8** Test Reports

Segment 2

- **1** System Trouble (siren, phone, expander, short circuit, earth fault)
- **2** Failure to Communicate
- **3** Sensor Lost / Sensor Low Battery
- 4 Program, Download, & Full Log (also set Feat 22 - Seg 4 - Op 2)
- **5** Cancel Code (also set for each area, Feat 16 - Seg 3 - Op 6)
- 6 Recent Closing / Exit Error
- 7 Reserved
- 8 Reserved

Feat. 10 — Dial Attempts \ Dialing Options — Pg 25

Segment 1: 6 — Dial Attempts

Segment 2: 0 — Dialing Options (0 = No function, 1 = Dual Report, 4 = Extended Phone Number)

Feat. 11 — Phone Line Cut Delay — Pg 25

0

Feat. 12 — Download Access Code — Pg 26

1 6 0 0 0 0 0 0

Feat. 13 — No. of Rings / Calls to Answer Download — Pg 26

Segment 1: 0 — Number of rings

Segment 2: 0 — Number of calls to answer download

Feat. 14 — Download Control — Pg 26

Segment 1

- 1 On enables two call Answering Machine Defeat
- 2 Reserved
- 3 On requires Call Back before Download Session
- 4 On enables Control Panel Shutdown (can only be changed through download software)
- 5 On locks all local programming (can only be changed through download software)
- 6 On locks out communicator programming (can only be changed through download software)
- 7 On locks out download section (can only be changed through download software)
- 8 On enables Call Back at Auto Test Interval

Feat. 15 — Callback Phone Number — Pg 26

14 14 14 14 14 14 14 14 14 14

14 14 14 14 14 14 14 14 14 14

Feat. 16 — Area 1 - Options and Report Selections — Pg 27

Segment 1

- **1** On enables the Quick Arm option
- **2** On enables the Re-exit option
- 3 On enables the Force Arm option
- 4 On enables the Silent Code Pad Panic
- **5** On enables the Audible Code Pad Panic
- **6** On enables the Code Pad Fire option
- **7** On enables the Code Pad Medical option
- 8 Multiple Code Attempt Tamper option

Segment 2

- 1 On enables the LED Extinguish option
- 2 Require User Code for bypassing zones
- 3 Zone Bypassed Sounder Alert option
- **4** AC Power/Low Battery Sounder Alert
- **5** On enables Bypass toggle
- 6 On enables Silent Auto Arm
- 7 On enables the Universal Arming option
- 8 Enables One Key Partial Mode Disarming

Segment 3

- **1** On enables Opening and Closing reports
- **2** On enables Zone Bypass reporting
- **3** On enables Zone Restore reporting
- **4** On enables Zone Trouble reporting
- **5** On enables Zone Tamper reporting
- 6 On enables the Cancel option
- **7** On enables Recent Closing option
- **8** On enables Exit Error option

Segment 4

- 1 On enables the Late To Close option
- 2 On enables the Autoarm In Partial option
- 3 Reserved
- 4 On disables Bypass for Force Arm Zones
- 5 Reserved
- 6 Reserved
- 7 Reserved
- 8 Reserved

Segment 5

- 1 Reserved
- 2 Reserved
- 3 Reserved
- 4 Reserved
- 5 Reserved
- 6 Reserved
- 7 Reserved
- 8 Reserved

Feat. 17 — Area 1 - Entry / Exit Timers — Pg 29

Segment	Default	Description
Segment 1	30	Entry Timer #1
Segment 2	60	Exit Timer #1
Segment 3	30	Entry Timer #2
Segment 4	60	Exit Timer #2
Segment 5		Reserved
Segment 6		Reserved

Feat. 18 — Zone 1-8 Configuration Groups — Pg 29

3	7	16	16	16	16	16	16

Feat. 19 — Zone 1-8 Area Selection — Pg 31

	Segment 1 (Zone 1)	Segment 2 (Zone 2)	Segment 3 (Zone 3)	Segment 4 (Zone 4)	Segment 5 (Zone 5)	Segment 6 (Zone 6)	Segment 7 (Zone 7)	Segment 8 (Zone 8)
Area 1	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
Area 2	2	2	2	2	2	2	2	2
Area 3	3	3	3	3	3	3	3	3
Area 4	4	4	4	4	4	4	4	4
Area 5	5	5	5	5	5	5	5	5
Area 6	6	6	6	6	6	6	6	6
Area 7	7	7	7	7	7	7	7	7
Area 8	8	8	8	8	8	8	8	8

Feat. 20 — Zone 9-16 Configuration Groups — Pg 31

16	16	16	16	16	16	16	16

Feat. 21 — Zone 9-16 Area Selection — Pg 32

	Segment 1 (Zone 9)	Segment 2 (Zone 10)	Segment 3 (Zone 11)	Segment 4 (Zone 12)	Segment 5 (Zone 13)	Segment 6 (Zone 14)	Segment 7 (Zone 15)	Segment 8 (Zone 16)
Area 1	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
Area 2	2	2	2	2	2	2	2	2
Area 3	3	3	3	3	3	3	3	3
Area 4	4	4	4	4	4	4	4	4
Area 5	5	5	5	5	5	5	5	5
Area 6	6	6	6	6	6	6	6	6
Area 7	7	7	7	7	7	7	7	7
Area 8	8	8	8	8	8	8	8	8

Feat. 22 — System Options — Pg 32

Segment 1

- **1** On if siren sounds for 'Telephone Line Cut' when armed
- 2 On if siren sounds for 'Telephone Line Cut' when disarmed
- 3 On if siren blast at arming
- 4 On if siren blast at exit delay expiration
- 5 On if siren blast at closing kiss-off
- **6** On if siren limited to once per zone
- 7 On if siren sounds for a Zone or Box Tamper
- **8** Siren blasts 1x for key-switch / wireless arming; 2x for disarming

Segment 2

- 1 On to enable Voltage Output; Off to enable On-board Siren Driver
- 2 On if sirens should sound on expander trouble
- 3 On if Communicator limited to once per zone
- 4 On if First to Open Last to Close Reports
- 5 On if Battery Missing Test is performed every 12 seconds
- **6** On if Strobe flashes for 3s for Key-switch Arm and 6s for Disarm
- 7 On if Manual Communicator Test performed during [*]-[44] function
- **8** On if Box Tamper Pins on the control panel are enabled

Segment 3

- **1** On if Box Tamper report enabled
- **2** On if AC Fail reporting enabled
- **3** On if Low Battery reporting enabled
- **4** On if Auxilary Power Over-current report enabled
- **5** On if Siren Supervision report enabled
- **6** On if Telephone Line Cut report enabled
- 7 Reserved
- **8** On if Expander Trouble reporting enabled

Segment 4

- **1** On if Fail To Communicate report enabled
- 2 On if Log Full report enabled
- **3** On if Auto-test report enabled
- **4** On if Start/End programming report enabled
- **5** On if End Download report enabled
- **6** On if Sensor Low Battery report enabled
- **7** On if Sensor Missing report enabled
- 8 On if Expander Module (number) to be reported via the Contact I.D

Segment 5

- **1** On enable Lost Clock service light
- 2 On enables Zone Doubling
- 3 On disables all hardwired zones on the NX board
- 4 On will enable all Dual End of Line (DEOL) resistors on all zones
- 5 On will prevent force armed zones to report bypass
- 6 On enables Silent Exit option
- 7 Reserved
- 8 On will Auto Partial Arm Area 1

Segment 6

- 1 Enable Two Wire Smoke
- 2 Reserved
- 3 Enable Zone Inactivity Time In Hours
- 4 Reserved
- 5 Reserved
- 6 Disable Clean-Me Reports (not used in Australia)
- 7 Disable Steady (Temporal) Siren (On enables Evacuation Siren for fire
- 8 Reserved

Segment 7

- 1 Reserved
- 2 Reserved
- 3 Reserved
- 4 Reserved
- 5 Reserved
- 6 Reserved
- 7 Reserved
- 8 Reserved

Feat. 23 — Siren / Communicator Attempt Count — Pg 35

0

Feat. 24 — Code Pad Sounder Control (Pg 35)

Segment 1

Option	Description
1 (filled)	On if code pad sounds for 'Telephone Line Cut ' when the system is armed
2 (filled)	On if code pad sounds for 'Telephone Line Cut' when disarmed
3	On if code pad sounds upon AC Power Failure
4	On if code pad sounds when a Low Battery is detected
5	On if code pad sounds during Twin Trip time
6 (filled)	On if code pad sounds for Zone and Box Tampers
7	On if code pad sounds for Medical Alarm
8	On if code pad sounds for Expander Trouble

Feat. 25 — System Timers (Pg 35)

Segment	Default	Description
Segment 1	20	Partial Arm Entry Time (10 - 255 sec)
Segment 2	0	Strobe Time (0 - 255 hours)
Segment 3	2	Dynamic Battery Test Duration (0 – 255 min)
Segment 4	30	AC Failure Report Delay (0 -255 min)
Segment 5	5	Siren Time (1 - 255 min)
Segment 6	5	Twin Trip Time (0 - 255 min)
Segment 7	5	Chime Option ('0' = Follow, '5' = Chime once, '255' = Latch)
Segment 8	0	Dialer Delay Time (0 - 255 sec)
Segment 9	120	Fire Alarm Verification Time (120 – 255 sec)
Segment 10	0	Reserved
Segment 11	0	Zone Inactivity Time (days) (see Feature 22, Segment 6, Option 3 to change to hours)
Segment 12	0	Reserved
Segment 13	0	Reserved
Segment 14	0	Reserved

Feat. 26 — Auxiliary Output 1-4 Area Selection (Pg 36)

	Segment 1 (Aux Out 1)	Segment 2 (Aux Out 2)	Segment 3 (Aux Out 3)	Segment 4 (Aux Out 4)
Area 1	**1**	**1**	**1**	**1**
Area 2	**2**	**2**	**2**	**2**
Area 3	**3**	**3**	**3**	**3**
Area 4	**4**	**4**	**4**	**4**
Area 5	**5**	**5**	**5**	**5**
Area 6	**6**	**6**	**6**	**6**
Area 7	**7**	**7**	**7**	**7**
Area 8	**8**	**8**	**8**	**8**

Feat. 27 — Auxiliary Outputs 1-4 Special Timing (Pg 37)

	Segment 1 (Aux Out 1)	Segment 2 (Aux Out 2)	Segment 3 (Aux Out 3)	Segment 4 (Aux Out 4)
On if output should be timed in minutes; Off if timed in seconds	1	1	1	1
On if output should latch; Off if output should be timed	2	2	2	2
On if output should stop timing upon code entry; Off if output to follow timer	**3**	**3**	**3**	**3**
On if output to only activate between the closing and opening time (F33, F34)	4	4	4	4
On if output to only activate between the opening and closing time (F33, F44)	5	5	5	5
On if output inverted (0 volts going to 12 volts when activated)	6	6	6	6
Reserved	7	7	7	7
Reserved	8	8	8	8

Feat. 28 — Auxiliary Output 1 - Event & Time (Pg 37)

Segment	Default	Description
Segment 1	51	Event A for Aux Out 1 (Default Event 51 = Strobe)
Segment 2	53	Event B for Aux Out 1 (Default Event 53 = False)
Segment 3	0	Logic for Aux Out 1 (Default Logic 0 = OR)
Segment 4	0	Timing for Aux Out 1 (Default Timing 0 = Follow)

Feat. 29 — Auxiliary Output 2 - Event & Time (Pg 37)

Segment	Default	Description
Segment 1	7	Event A for Aux Out 2 (Default Event 7 = Any Siren)
Segment 2	53	Event B for Aux Out 2 (Default Event 53 = False)
Segment 3	0	Logic for Aux Out 2 (Default Logic 0 = OR)
Segment 4	0	Timing for Aux Out 2 (Default Timing 0 = Follow)

Feat. 30 — Auxiliary Output 3 - Event & Time — Pg 37

Segment	Default	Description
Segment 1	23	Event A for Aux Out 3 (Default Event 23 = Ready)
Segment 2	53	Event B for Aux Out 3 (Default Event 53 = False)
Segment 3	0	Logic for Aux Out 3 (Default Logic 0 = OR)
Segment 4	0	Timing for Aux Out 3 (Default Timing 0 = Follow)

Feat. 31 — Auxiliary Output 4 - Event & Time — Pg 37

Segment	Default	Description
Segment 1	21	Event A for Aux Out 4 (Default Event 21 = Armed)
Segment 2	53	Event B for Aux Out 4 (Default Event 53 = False)
Segment 3	0	Logic for Aux Out 4 (Default Logic 0 = OR)
Segment 4	0	Timing for Aux Out 4 (Default Timing 0 = Follow)

Feat. 32 — Auto-Test Control — Pg 39

Segment	Default	Description
Segment 1	1	Auto-test day (0=hourly, 1=Sun, 2=Mon, 3=Tue, 4=Wed, 5=Thur, 6=Fri, 7=Sat, 8=Daily test)
Segment 2	168	Auto-test hourly test interval (1-255 hours) (Feature 32 - Segment 1 must be set to 0)
Segment 3	3	Auto-test hour (ignored if Feature 32 - Segment 1 set to 0)
Segment 4	0	Auto-test minute

Feat. 33 — Opening Time / Auto Disarm Time — Pg 39

Segment	Default	Description
Segment 1	8	Hours
Segment 2	0	Minutes

Feat. 34 — Closing Time / Auto Arm Time — Pg 39

Segment	Default	Description
Segment 1	20	Hours
Segment 2	0	Minutes

Feat. 35 — Days Open / 'Arm Only After Close' Window Authority — Pg 39

Segment 1 (Area 1)	Segment 2 (Area 2)	Segment 3 (Area 3)	Segment 4 (Area 4)	Segment 5 (Area 5)	Segment 6 (Area 6)	Segment 7 (Area 7)	Segment 8 (Area 8)
1 Sun	1 Sun	1 Sun	1 Sun	1 Sun	1 Sun	1 Sun	1 Sun
2 Mon	2 Mon	2 Mon	2 Mon	2 Mon	2 Mon	2 Mon	2 Mon
3 Tue	3 Tue	3 Tue	3 Tue	3 Tue	3 Tue	3 Tue	3 Tue
4 Wed	4 Wed	4 Wed	4 Wed	4 Wed	4 Wed	4 Wed	4 Wed
5 Thur	5 Thur	5 Thur	5 Thur	5 Thur	5 Thur	5 Thur	5 Thur
6 Fri	6 Fri	6 Fri	6 Fri	6 Fri	6 Fri	6 Fri	6 Fri
7 Sat	7 Sat	7 Sat	7 Sat	7 Sat	7 Sat	7 Sat	7 Sat
8 Reserved	8 Reserved	8 Reserved	8 Reserved	8 Reserved	8 Reserved	8 Reserved	8 Reserved

Feat. 36 — Days of the Week for Auto Arm Areas 1-8 — Pg 40

Segment 1 (Area 1)	Segment 2 (Area 2)	Segment 3 (Area 3)	Segment 4 (Area 4)	Segment 5 (Area 5)	Segment 6 (Area 6)	Segment 7 (Area 7)	Segment 8 (Area 8)
1 Sun	1 Sun	1 Sun	1 Sun	1 Sun	1 Sun	1 Sun	1 Sun
2 Mon	2 Mon	2 Mon	2 Mon	2 Mon	2 Mon	2 Mon	2 Mon
3 Tue	3 Tue	3 Tue	3 Tue	3 Tue	3 Tue	3 Tue	3 Tue
4 Wed	4 Wed	4 Wed	4 Wed	4 Wed	4 Wed	4 Wed	4 Wed
5 Thur	5 Thur	5 Thur	5 Thur	5 Thur	5 Thur	5 Thur	5 Thur
6 Fri	6 Fri	6 Fri	6 Fri	6 Fri	6 Fri	6 Fri	6 Fri
7 Sat	7 Sat	7 Sat	7 Sat	7 Sat	7 Sat	7 Sat	7 Sat
8 Reserved	8 Reserved	8 Reserved	8 Reserved	8 Reserved	8 Reserved	8 Reserved	8 Reserved

Feat. 37 — Area 1 Account Code — Pg 40

10	10	10	10	10	10

Feat. 38 — Area 2 - Account Code — Pg 40

10 10 10 10 10 10

Feat. 39 — Area 2 - Options and Report Selections — Pg 41

Segment 1

1. On enables the Quick Arm option
2. On enables the Re-exit option
3. On enables the Force Arm option
4. On enables the Silent Code Pad Panic
5. On enables the Audible Code Pad Panic
6. On enables the Code Pad Fire option
7. On enables the Code Pad Medical option
8. Multiple Code Attempt Tamper option

Segment 2

1. On enables the LED Extinguish option
2. Require User Code for bypassing zones
3. Zone Bypassed Sounder Alert option
4. AC Power/Low Battery Sounder Alert
5. On enables Bypass toggle
6. On enables Silent Auto Arm
7. On enables the Universal Arming option
8. Enables One Key Partial Mode Disarming

Segment 3

1. On enables Opening and Closing reports
2. On enables Zone Bypass reporting
3. On enables Zone Restore reporting
4. On enables Zone Trouble reporting
5. On enables Zone Tamper reporting
6. On enables the Cancel option
7. On enables Recent Closing option
8. On enables Exit Error option

Segment 4

1. On enables the Late To Close option
2. On enables the Autoarm In Partial option
3. Reserved
4. On disables Bypass for Force Arm Zones
5. Reserved
6. Reserved
7. Reserved
8. Reserved

Segment 5

1. Reserved
2. Reserved
3. Reserved
4. Reserved
5. Reserved
6. Reserved
7. Reserved
8. Reserved

Feat. 40 — Area 2 - Entry / Exit Timers — Pg 42

Segment 1	30	Entry Timer #1	Segment 2	60	Exit Timer #1
Segment 3	30	Entry Timer #2	Segment 4	60	Exit Timer #2
Segment 5	0	Reserved	Segment 6	0	Reserved

Feat. 41 — Area 3 - Account Code — Pg 42

10 10 10 10 10 10

Feat. 42 — Area 3 - Options and Report Selections — Pg 42

Segment 1

1. On enables the Quick Arm option
2. On enables the Re-exit option
3. On enables the Force Arm option
4. On enables the Silent Code Pad Panic
5. On enables the Audible Code Pad Panic
6. On enables the Code Pad Fire option
7. On enables the Code Pad Medical option
8. Multiple Code Attempt Tamper option

Segment 2

1. On enables the LED Extinguish option
2. Require User Code for bypassing zones
3. Zone Bypassed Sounder Alert option
4. AC Power/Low Battery Sounder Alert
5. On enables Bypass toggle
6. On enables Silent Auto Arm
7. On enables the Universal Arming option
8. Enables One Key Partial Mode Disarming

Segment 3

1. On enables Opening and Closing reports
2. On enables Zone Bypass reporting
3. On enables Zone Restore reporting
4. On enables Zone Trouble reporting
5. On enables Zone Tamper reporting
6. On enables the Cancel option
7. On enables Recent Closing option
8. On enables Exit Error option

Segment 4

1. On enables the Late To Close option
2. On enables the Autoarm In Partial option
3. Reserved
4. On disables Bypass for Force Arm Zones
5. Reserved
6. Reserved
7. Reserved
8. Reserved

Segment 5

1. Reserved
2. Reserved
3. Reserved
4. Reserved
5. Reserved
6. Reserved
7. Reserved
8. Reserved

Feat. 43 — Area 3 - Entry / Exit Timers — Pg 42

Segment 1	30	Entry Timer #1	Segment 2	60	Exit Timer #1
Segment 3	30	Entry Timer #2	Segment 4	60	Exit Timer #2
Segment 5	0	Reserved	Segment 6	0	Reserved

Feat. 44 — Area 4 - Account Code — Pg 42

10 | 10 | 10 | 10 | 10 | 10

Feat. 45 — Area 4 - Options and Report Selections — Pg 42

Segment 1

1. On enables the Quick Arm option
2. On enables the Re-exit option
3. On enables the Force Arm option
4. On enables the Silent Code Pad Panic
5. On enables the Audible Code Pad Panic
6. On enables the Code Pad Fire option
7. On enables the Code Pad Medical option
8. Multiple Code Attempt Tamper option

Segment 2

1. On enables the LED Extinguish option
2. Require User Code for bypassing zones
3. Zone Bypassed Sounder Alert option
4. AC Power/Low Battery Sounder Alert
5. On enables Bypass toggle
6. On enables Silent Auto Arm
7. On enables the Universal Arming option
8. Enables One Key Partial Mode Disarming

Segment 3

1. On enables Opening and Closing reports
2. On enables Zone Bypass reporting
3. On enables Zone Restore reporting
4. On enables Zone Trouble reporting
5. On enables Zone Tamper reporting
6. On enables the Cancel option
7. On enables Recent Closing option
8. On enables Exit Error option

Segment 4

1. On enables the Late To Close option
2. On enables the Autoarm In Partial option
3. Reserved
4. On disables Bypass for Force Arm Zones
5. Reserved
6. Reserved
7. Reserved
8. Reserved

Segment 5

1. Reserved
2. Reserved
3. Reserved
4. Reserved
5. Reserved
6. Reserved
7. Reserved
8. Reserved

Feat. 46 — Area 4 - Entry / Exit Timers — Pg 42

Segment 1	30	Entry Timer #1	Segment 2	60	Exit Timer #1
Segment 3	30	Entry Timer #2	Segment 4	60	Exit Timer #2
Segment 5	0	Reserved	Segment 6	0	Reserved

Feat. 47 — Area 5 - Account Code — Pg 42

10 | 10 | 10 | 10 | 10 | 10

Feat. 48 — Area 5 - Options and Report Selections — Pg 43

Segment 1

1. On enables the Quick Arm option
2. On enables the Re-exit option
3. On enables the Force Arm option
4. On enables the Silent Code Pad Panic
5. On enables the Audible Code Pad Panic
6. On enables the Code Pad Fire option
7. On enables the Code Pad Medical option
8. Multiple Code Attempt Tamper option

Segment 2

1. On enables the LED Extinguish option
2. Require User Code for bypassing zones
3. Zone Bypassed Sounder Alert option
4. AC Power/Low Battery Sounder Alert
5. On enables Bypass toggle
6. On enables Silent Auto Arm
7. On enables the Universal Arming option
8. Enables One Key Partial Mode Disarming

Segment 3

1. On enables Opening and Closing reports
2. On enables Zone Bypass reporting
3. On enables Zone Restore reporting
4. On enables Zone Trouble reporting
5. On enables Zone Tamper reporting
6. On enables the Cancel option
7. On enables Recent Closing option
8. On enables Exit Error option

Segment 4

1. On enables the Late To Close option
2. On enables the Autoarm In Partial option
3. Reserved
4. On disables Bypass for Force Arm Zones
5. Reserved
6. Reserved
7. Reserved
8. Reserved

Segment 5

1. Reserved
2. Reserved
3. Reserved
4. Reserved
5. Reserved
6. Reserved
7. Reserved
8. Reserved

Feat. 49 — Area 5 - Entry / Exit Timers — Pg 43

Segment 1	30	Entry Timer #1	Segment 2	60	Exit Timer #1
Segment 3	30	Entry Timer #2	Segment 4	60	Exit Timer #2
Segment 5	0	Reserved	Segment 6	0	Reserved

Feat. 50 — Area 6 - Account Code — Pg 43

10 | 10 | 10 | 10 | 10 | 10

Feat. 51 — Area 6 - Options and Report Selections — Pg 43

Segment 1

1. On enables the Quick Arm option
2. On enables the Re-exit option
3. On enables the Force Arm option
4. On enables the Silent Code Pad Panic
5. On enables the Audible Code Pad Panic
6. On enables the Code Pad Fire option
7. On enables the Code Pad Medical option
8. Multiple Code Attempt Tamper option

Segment 2

1. On enables the LED Extinguish option
2. Require User Code for bypassing zones
3. Zone Bypassed Sounder Alert option
4. AC Power/Low Battery Sounder Alert
5. On enables Bypass toggle
6. On enables Silent Auto Arm
7. On enables the Universal Arming option
8. Enables One Key Partial Mode Disarming

Segment 3

1. On enables Opening and Closing reports
2. On enables Zone Bypass reporting
3. On enables Zone Restore reporting
4. On enables Zone Trouble reporting
5. On enables Zone Tamper reporting
6. On enables the Cancel option
7. On enables Recent Closing option
8. On enables Exit Error option

Segment 4

1. On enables the Late To Close option
2. On enables the Autoarm In Partial option
3. Reserved
4. On disables Bypass for Force Arm Zones
5. Reserved
6. Reserved
7. Reserved
8. Reserved

Segment 5

1. Reserved
2. Reserved
3. Reserved
4. Reserved
5. Reserved
6. Reserved
7. Reserved
8. Reserved

Feat. 52 — Area 6 - Entry / Exit Timers — Pg 43

Segment 1	30	Entry Timer #1	
Segment 2	60	Exit Timer #1	
Segment 3	30	Entry Timer #2	
Segment 4	60	Exit Timer #2	
Segment 5	0	Reserved	
Segment 6	0	Reserved	

Feat. 53 — Area 7 - Account Code — Pg 43

10 | 10 | 10 | 10 | 10 | 10

Feat. 54 — Area 7 - Options and Report Selections — Pg 43

Segment 1

1. On enables the Quick Arm option
2. On enables the Re-exit option
3. On enables the Force Arm option
4. On enables the Silent Code Pad Panic
5. On enables the Audible Code Pad Panic
6. On enables the Code Pad Fire option
7. On enables the Code Pad Medical option
8. Multiple Code Attempt Tamper option

Segment 2

1. On enables the LED Extinguish option
2. Require User Code for bypassing zones
3. Zone Bypassed Sounder Alert option
4. AC Power/Low Battery Sounder Alert
5. On enables Bypass toggle
6. On enables Silent Auto Arm
7. On enables the Universal Arming option
8. Enables One Key Partial Mode Disarming

Segment 3

1. On enables Opening and Closing reports
2. On enables Zone Bypass reporting
3. On enables Zone Restore reporting
4. On enables Zone Trouble reporting
5. On enables Zone Tamper reporting
6. On enables the Cancel option
7. On enables Recent Closing option
8. On enables Exit Error option

Segment 4

1. On enables the Late To Close option
2. On enables the Autoarm In Partial option
3. Reserved
4. On disables Bypass for Force Arm Zones
5. Reserved
6. Reserved
7. Reserved
8. Reserved

Segment 5

1. Reserved
2. Reserved
3. Reserved
4. Reserved
5. Reserved
6. Reserved
7. Reserved
8. Reserved

Feat. 55 — Area 7 - Entry / Exit Timers — Pg 43

Segment 1	30	Entry Timer #1	
Segment 2	60	Exit Timer #1	
Segment 3	30	Entry Timer #2	
Segment 4	60	Exit Timer #2	
Segment 5	0	Reserved	
Segment 6	0	Reserved	

Feat. 56 — Area 8 - Account Code — Pg 44

10	10	10	10	10	10

Feat. 57 — Area 8 - Options and Report Selections — Pg 44

Segment 1

1. On enables the Quick Arm option
2. On enables the Re-exit option
3. On enables the Force Arm option
4. On enables the Silent Code Pad Panic
5. On enables the Audible Code Pad Panic
6. On enables the Code Pad Fire option
7. On enables the Code Pad Medical option
8. Multiple Code Attempt Tamper option

Segment 2

1. On enables the LED Extinguish option
2. Require User Code for bypassing zones
3. Zone Bypassed Sounder Alert option
4. AC Power/Low Battery Sounder Alert
5. On enables Bypass toggle
6. On enables Silent Auto Arm
7. On enables the Universal Arming option
8. Enables One Key Partial Mode Disarming

Segment 3

1. On enables Opening and Closing reports
2. On enables Zone Bypass reporting
3. On enables Zone Restore reporting
4. On enables Zone Trouble reporting
5. On enables Zone Tamper reporting
6. On enables the Cancel option
7. On enables Recent Closing option
8. On enables Exit Error option

Segment 4

1. On enables the Late To Close option
2. On enables the Autoarm In Partial option
3. Reserved
4. On disables Bypass for Force Arm Zones
5. Reserved
6. Reserved
7. Reserved
8. Reserved

Segment 5

1. Reserved
2. Reserved
3. Reserved
4. Reserved
5. Reserved
6. Reserved
7. Reserved
8. Reserved

Feat. 58 — Area 8 - Entry / Exit Timers — Pg 44

Segment	Default	Function
Segment 1	30	Entry Timer #1
Segment 2	60	Exit Timer #1
Segment 3	30	Entry Timer #2
Segment 4	60	Exit Timer #2
Segment 5	0	Reserved
Segment 6	0	Reserved

Feat. 59 — Zone 17-24 Configuration Groups — Pg 44

16	16	16	16	16	16	16	16

Feat. 60 — Zone 17-24 Area Selection — Pg 44

	Segment 1 (Zone 17)	Segment 2 (Zone 18)	Segment 3 (Zone 19)	Segment 4 (Zone 20)	Segment 5 (Zone 21)	Segment 6 (Zone 22)	Segment 7 (Zone 23)	Segment 8 (Zone 24)
Area 1	1	1	1	1	1	1	1	1
Area 2	2	2	2	2	2	2	2	2
Area 3	3	3	3	3	3	3	3	3
Area 4	4	4	4	4	4	4	4	4
Area 5	5	5	5	5	5	5	5	5
Area 6	6	6	6	6	6	6	6	6
Area 7	7	7	7	7	7	7	7	7
Area 8	8	8	8	8	8	8	8	8

Feat. 61 — Zone 25-32 Configuration Groups — Pg 44

16	16	16	16	16	16	16	16

Feat. 62 — Zone 25-32 Area Selection — Pg 45

	Segment 1 (Zone 25)	Segment 2 (Zone 26)	Segment 3 (Zone 27)	Segment 4 (Zone 28)	Segment 5 (Zone 29)	Segment 6 (Zone 30)	Segment 7 (Zone 31)	Segment 8 (Zone 32)
Area 1	1	1	1	1	1	1	1	1
Area 2	2	2	2	2	2	2	2	2
Area 3	3	3	3	3	3	3	3	3
Area 4	4	4	4	4	4	4	4	4
Area 5	5	5	5	5	5	5	5	5
Area 6	6	6	6	6	6	6	6	6
Area 7	7	7	7	7	7	7	7	7
Area 8	8	8	8	8	8	8	8	8

Feat. 63 — Zone 33-40 Configuration Groups — Pg 45

16 16 16 16 16 16 16 16

Feat. 64 — Zone 33-40 Area Selection — Pg 45

	Segment 1 (Zone 33)	Segment 2 (Zone 34)	Segment 3 (Zone 35)	Segment 4 (Zone 36)	Segment 5 (Zone 37)	Segment 6 (Zone 38)	Segment 7 (Zone 39)	Segment 8 (Zone 40)
Area 1	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
Area 2	2	2	2	2	2	2	2	2
Area 3	3	3	3	3	3	3	3	3
Area 4	4	4	4	4	4	4	4	4
Area 5	5	5	5	5	5	5	5	5
Area 6	6	6	6	6	6	6	6	6
Area 7	7	7	7	7	7	7	7	7
Area 8	8	8	8	8	8	8	8	8

Feat. 65 — Zone 41-48 Configuration Groups — Pg 45

16 16 16 16 16 16 16 16

Feat. 66 — Zone 41-48 Area Selection — Pg 45

	Segment 1 (Zone 41)	Segment 2 (Zone 42)	Segment 3 (Zone 43)	Segment 4 (Zone 44)	Segment 5 (Zone 45)	Segment 6 (Zone 46)	Segment 7 (Zone 47)	Segment 8 (Zone 48)
Area 1	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
Area 2	2	2	2	2	2	2	2	2
Area 3	3	3	3	3	3	3	3	3
Area 4	4	4	4	4	4	4	4	4
Area 5	5	5	5	5	5	5	5	5
Area 6	6	6	6	6	6	6	6	6
Area 7	7	7	7	7	7	7	7	7
Area 8	8	8	8	8	8	8	8	8

Feat. 67 — Configuration Group 1 - Alarm Event Code — Pg 45

3

Feat. 68 — Configuration Group 1 - Characteristic Select — Pg 46

Segment 1

1. Fire (turn on if this is a fire zone)
2. 24 hour (turn on for non-fire 24 hour zones)
3. Key-switch zone (normally open switch)
4. Follower (turn on for burglary zones that are instant during non-entry
5. **Delay 1 zone (follows timer 1 entry and exit times)**
6. Delay 2 zone (follows timer 2 entry and exit times)
7. Reserved
8. Local only (turn on if this zone should not be reported)

Segment 2

1. On if configuration group will beep the code pad for alarm
2. **On if configuration group will sound the yelping siren for alarm**
3. On if configuration group will sound the steady (temporal) siren for
4. On if configuration group will chime
5. **On if configuration group can be bypassed**
6. On if configuration group is included in the Group Bypass
7. **On if configuration group is Force Arm**
8. **On if configuration group is Active in Partial Mode**

Segment 3

1. Reserved
2. **On enables Double End of Line Tamper zone**
3. On enables Trouble Reporting zone (Day zone & Fire zones)
4. On if configuration group is a Twin Trip Zone
5. **On enables Dialer Delay zone**
6. **On if configuration group will siren / communicator attempt count**
7. **On enables Restore reporting**
8. **Reserved**

Segment 4

1. Zone Activity Monitor
2. EOL Resistor Defeat (if enables, a short = seal, open circuit = unseal)
3. Request to Exit (REX button)
4. Access Control
5. Reserved
6. Reserved
7. Reserved
8. Reserved

Segment 5

1. Reserved
2. Reserved
3. Reserved
4. Reserved
5. Reserved
6. Reserved
7. Reserved
8. Reserved

Feat. 69 — Configuration Group 2 - Alarm Event Code — Pg 47

3

Feat. 70 — Configuration Group 2 - Characteristic Select — Pg 47

Segment 1	Segment 2	Segment 3	Segment 4	Segment 5
(1) Fire	(1) Code pad beep	(1) Reserved	(1) Zone Activity	(1) Reserved
(2) 24 hour	**(2)** Yelping siren	**(2)** DEOL Tamper	(2) Resistor Defeat	(2) Reserved
(3) Key-switch	(3) Steady siren	(3) Trouble	(3) Request to Exit	(3) Reserved
(4) Follower	**(4)** Chime	(4) Twin Trip	(4) Access Control	(4) Reserved
(5) Delay 1	**(5)** Bypass	**(5)** Dialer Delay	(5) Reserved	(5) Reserved
(6) Delay 2	(6) Group Bypass	**(6)** Siren / Comm	(6) Reserved	(6) Reserved
(7) Reserved	**(7)** Force Arm	**(7)** Restore	(7) Reserved	(7) Reserved
(8) Local only	(8) Partial Mode	**(8)** Reserved	(8) Reserved	(8) Reserved

Feat. 71 — Configuration Group 3 - Alarm Event Code — Pg 47

3

Feat. 72 — Configuration Group 3 - Characteristic Select — Pg 47

Segment 1	Segment 2	Segment 3	Segment 4	Segment 5
(1) Fire	(1) Code pad beep	(1) Reserved	(1) Zone Activity	(1) Reserved
(2) 24 hour	**(2)** Yelping siren	**(2)** DEOL Tamper	(2) Resistor Defeat	(2) Reserved
(3) Key-switch	(3) Steady siren	(3) Trouble	(3) Request to Exit	(3) Reserved
(4) Follower	**(4)** Chime	(4) Twin Trip	(4) Access Control	(4) Reserved
(5) Delay 1	**(5)** Bypass	**(5)** Dialer Delay	(5) Reserved	(5) Reserved
(6) Delay 2	(6) Group Bypass	**(6)** Siren / Comm	(6) Reserved	(6) Reserved
(7) Reserved	**(7)** Force Arm	**(7)** Restore	(7) Reserved	(7) Reserved
(8) Local only	**(8)** Partial Mode	**(8)** Reserved	(8) Reserved	(8) Reserved

Feat. 73 — Configuration Group 4 - Alarm Event Code — Pg 47

3

Feat. 74 — Configuration Group 4 - Characteristic Select — Pg 47

Segment 1	Segment 2	Segment 3	Segment 4	Segment 5
(1) Fire	(1) Code pad beep	(1) Reserved	(1) Zone Activity	(1) Reserved
(2) 24 hour	**(2)** Yelping siren	**(2)** DEOL Tamper	(2) Resistor Defeat	(2) Reserved
(3) Key-switch	(3) Steady siren	(3) Trouble	(3) Request to Exit	(3) Reserved
(4) Follower	(4) Chime	(4) Twin Trip	(4) Access Control	(4) Reserved
(5) Delay 1	**(5)** Bypass	**(5)** Dialer Delay	(5) Reserved	(5) Reserved
(6) Delay 2	(6) Group Bypass	**(6)** Siren / Comm	(6) Reserved	(6) Reserved
(7) Reserved	**(7)** Force Arm	**(7)** Restore	(7) Reserved	(7) Reserved
(8) Local only	**(8)** Partial Mode	**(8)** Reserved	(8) Reserved	(8) Reserved

Feat. 75 — Configuration Group 5 - Alarm Event Code — Pg 47

3

Feat. 76 — Configuration Group 5 - Characteristic Select — Pg 47

Segment 1	Segment 2	Segment 3	Segment 4	Segment 5
(1) Fire	(1) Code pad beep	(1) Reserved	(1) Zone Activity	(1) Reserved
(2) 24 hour	**(2)** Yelping siren	**(2)** DEOL Tamper	(2) Resistor Defeat	(2) Reserved
(3) Key-switch	(3) Steady siren	(3) Trouble	(3) Request to Exit	(3) Reserved
(4) Follower	**(4)** Chime	(4) Twin Trip	(4) Access Control	(4) Reserved
(5) Delay 1	**(5)** Bypass	**(5)** Dialer Delay	(5) Reserved	(5) Reserved
(6) Delay 2	(6) Group Bypass	**(6)** Siren / Comm	(6) Reserved	(6) Reserved
(7) Reserved	**(7)** Force Arm	**(7)** Restore	(7) Reserved	(7) Reserved
(8) Local only	**(8)** Partial Mode	**(8)** Reserved	(8) Reserved	(8) Reserved

Feat. 77 — Configuration Group 6 - Alarm Event Code — Pg 47

3

Feat. 78 — Configuration Group 6 - Characteristic Select — Pg 48

Segment 1	Segment 2	Segment 3	Segment 4	Segment 5
1 Fire	1 Code pad beep	1 Reserved	1 Zone Activity	1 Reserved
2 24 hour	**2** Yelping siren	**2** DEOL Tamper	2 Resistor Defeat	2 Reserved
3 Key-switch	3 Steady siren	3 Trouble	3 Request to Exit	3 Reserved
4 Follower	4 Chime	4 Twin Trip	4 Access Control	4 Reserved
5 Delay 1	**5** Bypass	**5** Dialer Delay	5 Reserved	5 Reserved
6 Delay 2	6 Group Bypass	**6** Siren / Comm	6 Reserved	6 Reserved
7 Reserved	**7** Force Arm	**7** Restore	7 Reserved	7 Reserved
8 Local only	8 Partial Mode	**8** Reserved	8 Reserved	8 Reserved

Feat. 79 — Configuration Group 7 - Alarm Event Code — Pg 48

3

Feat. 80 — Configuration Group 7 - Characteristic Select — Pg 48

Segment 1	Segment 2	Segment 3	Segment 4	Segment 5
1 Fire	1 Code pad beep	1 Reserved	1 Zone Activity	1 Reserved
2 24 hour	**2** Yelping siren	**2** DEOL Tamper	2 Resistor Defeat	2 Reserved
3 Key-switch	3 Steady siren	3 Trouble	3 Request to Exit	3 Reserved
4 Follower	4 Chime	4 Twin Trip	4 Access Control	4 Reserved
5 Delay 1	**5** Bypass	**5** Dialer Delay	5 Reserved	5 Reserved
6 Delay 2	6 Group Bypass	**6** Siren / Comm	6 Reserved	6 Reserved
7 Reserved	**7** Force Arm	**7** Restore	7 Reserved	7 Reserved
8 Local only	**8** Partial Mode	**8** Reserved	8 Reserved	8 Reserved

Feat. 81 — Configuration Group 8 - Alarm Event Code — Pg 48

3

Feat. 82 — Configuration Group 8 - Characteristic Select — Pg 48

Segment 1	Segment 2	Segment 3	Segment 4	Segment 5
1 Fire	1 Code pad beep	1 Reserved	1 Zone Activity	1 Reserved
2 24 hour	**2** Yelping siren	**2** DEOL Tamper	2 Resistor Defeat	2 Reserved
3 Key-switch	3 Steady siren	3 Trouble	3 Request to Exit	3 Reserved
4 Follower	4 Chime	**4** Twin Trip	4 Access Control	4 Reserved
5 Delay 1	**5** Bypass	**5** Dialer Delay	5 Reserved	5 Reserved
6 Delay 2	6 Group Bypass	**6** Siren / Comm	6 Reserved	6 Reserved
7 Reserved	**7** Force Arm	**7** Restore	7 Reserved	7 Reserved
8 Local only	8 Partial Mode	**8** Reserved	8 Reserved	8 Reserved

Feat. 83 — Configuration Group 9 - Alarm Event Code — Pg 48

3

Feat. 84 — Configuration Group 9 - Characteristic Select — Pg 48

Segment 1	Segment 2	Segment 3	Segment 4	Segment 5
1 Fire	1 Code pad beep	1 Reserved	1 Zone Activity	1 Reserved
2 24 hour	**2** Yelping siren	**2** DEOL Tamper	2 Resistor Defeat	2 Reserved
3 Key-switch	3 Steady siren	3 Trouble	3 Request to Exit	3 Reserved
4 Follower	4 Chime	4 Twin Trip	4 Access Control	4 Reserved
5 Delay 1	**5** Bypass	**5** Dialer Delay	5 Reserved	5 Reserved
6 Delay 2	**6** Group Bypass	**6** Siren / Comm	6 Reserved	6 Reserved
7 Reserved	**7** Force Arm	**7** Restore	7 Reserved	7 Reserved
8 Local only	8 Partial Mode	**8** Reserved	8 Reserved	8 Reserved

Feat. 85 — Configuration Group 10 - Alarm Event Code — Pg 48

3

Feat. 86 — Configuration Group 10 - Characteristic Select — Pg 48

Segment 1	Segment 2	Segment 3	Segment 4	Segment 5
1 Fire	1 Code pad beep	1 Reserved	1 Zone Activity	1 Reserved
2 24 hour	**2** Yelping siren	**2** DEOL Tamper	2 Resistor Defeat	2 Reserved
3 Key-switch	3 Steady siren	3 Trouble	3 Request to Exit	3 Reserved
4 Follower	**4** Chime	**4** Twin Trip	4 Access Control	4 Reserved
5 Delay 1	**5** Bypass	**5** Dialer Delay	5 Reserved	5 Reserved
6 Delay 2	6 Group Bypass	**6** Siren / Comm	6 Reserved	6 Reserved
7 Reserved	**7** Force Arm	**7** Restore	7 Reserved	7 Reserved
8 Local only	8 Partial Mode	**8** Reserved	8 Reserved	8 Reserved

Feat. 87 — Configuration Group 11 - Alarm Event Code — Pg 49

3

Feat. 88 — Configuration Group 11 - Characteristic Select — Pg 49

Segment 1	Segment 2	Segment 3	Segment 4	Segment 5
1 Fire	1 Code pad beep	1 Reserved	1 Zone Activity	1 Reserved
2 24 hour	**2** Yelping siren	**2** DEOL Tamper	2 Resistor Defeat	2 Reserved
3 Key-switch	3 Steady siren	3 Trouble	3 Request to Exit	3 Reserved
4 Follower	4 Chime	**4** Twin Trip	4 Access Control	4 Reserved
5 Delay 1	**5** Bypass	**5** Dialer Delay	5 Reserved	5 Reserved
6 Delay 2	6 Group Bypass	**6** Siren / Comm	6 Reserved	6 Reserved
7 Reserved	**7** Force Arm	**7** Restore	7 Reserved	7 Reserved
8 Local only	**8** Partial Mode	**8** Reserved	8 Reserved	8 Reserved

Feat. 89 — Configuration Group 12 - Alarm Event Code — Pg 49

3

Feat. 90 — Configuration Group 12 - Characteristic Select — Pg 49

Segment 1	Segment 2	Segment 3	Segment 4	Segment 5
1 Fire	1 Code pad beep	1 Reserved	1 Zone Activity	1 Reserved
2 24 hour	**2** Yelping siren	**2** DEOL Tamper	2 Resistor Defeat	2 Reserved
3 Key-switch	3 Steady siren	3 Trouble	3 Request to Exit	3 Reserved
4 Follower	4 Chime	4 Twin Trip	4 Access Control	4 Reserved
5 Delay 1	**5** Bypass	**5** Dialer Delay	5 Reserved	5 Reserved
6 Delay 2	**6** Group Bypass	**6** Siren / Comm	6 Reserved	6 Reserved
7 Reserved	**7** Force Arm	**7** Restore	7 Reserved	7 Reserved
8 Local only	**8** Partial Mode	**8** Reserved	8 Reserved	8 Reserved

Feat. 91 — Configuration Group 13 - Alarm Event Code — Pg 49

3

Feat. 92 — Configuration Group 13 - Characteristic Select — Pg 49

Segment 1	Segment 2	Segment 3	Segment 4	Segment 5
1 Fire	1 Code pad beep	1 Reserved	1 Zone Activity	1 Reserved
2 24 hour	**2** Yelping siren	**2** DEOL Tamper	2 Resistor Defeat	2 Reserved
3 Key-switch	3 Steady siren	3 Trouble	3 Request to Exit	3 Reserved
4 Follower	4 Chime	**4** Twin Trip	4 Access Control	4 Reserved
5 Delay 1	**5** Bypass	**5** Dialer Delay	5 Reserved	5 Reserved
6 Delay 2	**6** Group Bypass	**6** Siren / Comm	6 Reserved	6 Reserved
7 Reserved	**7** Force Arm	**7** Restore	7 Reserved	7 Reserved
8 Local only	8 Partial Mode	**8** Reserved	8 Reserved	8 Reserved

Feat. 93 — Configuration Group 14 - Alarm Event Code — Pg 49

3

Feat. 94 — Configuration Group 14 - Characteristic Select — Pg 49

Segment 1	Segment 2	Segment 3	Segment 4	Segment 5
1 Fire	1 Code pad beep	1 Reserved	1 Zone Activity	1 Reserved
2 24 hour	**2** Yelping siren	**2** DEOL Tamper	2 Resistor Defeat	2 Reserved
3 Key-switch	3 Steady siren	3 Trouble	3 Request to Exit	3 Reserved
4 Follower	4 Chime	**4** Twin Trip	4 Access Control	4 Reserved
5 Delay 1	**5** Bypass	**5** Dialer Delay	5 Reserved	5 Reserved
6 Delay 2	**6** Group Bypass	**6** Siren / Comm	6 Reserved	6 Reserved
7 Reserved	**7** Force Arm	**7** Restore	7 Reserved	7 Reserved
8 Local only	**8** Partial Mode	**8** Reserved	8 Reserved	8 Reserved

Feat. 95 — Configuration Group 15 - Alarm Event Code — Pg 49

3

Feat. 96 — Configuration Group 15 - Characteristic Select — Pg 50

Segment 1	Segment 2	Segment 3	Segment 4	Segment 5
1 Fire	1 Code pad beep	1 Reserved	1 Zone Activity	1 Reserved
2 24 hour	**2** Yelping siren	**2** DEOL Tamper	2 Resistor Defeat	2 Reserved
3 Key-switch	3 Steady siren	3 Trouble	3 Request to Exit	3 Reserved
4 Follower	4 Chime	4 Twin Trip	4 Access Control	4 Reserved
5 Delay 1	**5** Bypass	**5** Dialer Delay	5 Reserved	5 Reserved
6 Delay 2	6 Group Bypass	**6** Siren / Comm	6 Reserved	6 Reserved
7 Reserved	7 Force Arm	**7** Restore	7 Reserved	7 Reserved
8 Local only	8 Partial Mode	**8** Reserved	8 Reserved	8 Reserved

Feat. 97 — Configuration Group 16 - Alarm Event Code — Pg 50

3

Feat. 98 — Configuration Group 16 - Characteristic Select — Pg 50

Segment 1	Segment 2	Segment 3	Segment 4	Segment 5
1 Fire	1 Code pad beep	1 Reserved	1 Zone Activity	1 Reserved
2 24 hour	**2** Yelping siren	**2** DEOL Tamper	2 Resistor Defeat	2 Reserved
3 Key-switch	3 Steady siren	3 Trouble	3 Request to Exit	3 Reserved
4 Follower	4 Chime	4 Twin Trip	4 Access Control	4 Reserved
5 Delay 1	**5** Bypass	**5** Dialer Delay	5 Reserved	5 Reserved
6 Delay 2	6 Group Bypass	**6** Siren / Comm	6 Reserved	6 Reserved
7 Reserved	7 Force Arm	**7** Restore	7 Reserved	7 Reserved
8 Local only	**8** Partial Mode	**8** Reserved	8 Reserved	8 Reserved

Feat. 99 — Configuration Group 17 - Alarm Event Code — Pg 50

3

Feat. 100 — Configuration Group 17 - Characteristic Select — Pg 50

Segment 1	Segment 2	Segment 3	Segment 4	Segment 5
1 Fire	1 Code pad beep	1 Reserved	1 Zone Activity	1 Reserved
2 24 hour	**2** Yelping siren	2 DEOL Tamper	2 Resistor Defeat	2 Reserved
3 Key-switch	3 Steady siren	3 Trouble	3 Request to Exit	3 Reserved
4 Follower	4 Chime	4 Twin Trip	4 Access Control	4 Reserved
5 Delay 1	**5** Bypass	**5** Dialer Delay	5 Reserved	5 Reserved
6 Delay 2	6 Group Bypass	**6** Siren / Comm	6 Reserved	6 Reserved
7 Reserved	7 Force Arm	**7** Restore	7 Reserved	7 Reserved
8 Local only	**8** Partial Mode	**8** Reserved	8 Reserved	8 Reserved

Feat. 101 — Configuration Group 18 - Alarm Event Code — Pg 50

3

Feat. 102 — Configuration Group 18 - Characteristic Select — Pg 50

Segment 1	Segment 2	Segment 3	Segment 4	Segment 5
1 Fire	1 Code pad beep	1 Reserved	1 Zone Activity	1 Reserved
2 24 hour	**2** Yelping siren	**2** DEOL Tamper	2 Resistor Defeat	2 Reserved
3 Key-switch	3 Steady siren	3 Trouble	3 Request to Exit	3 Reserved
4 Follower	4 Chime	**4** Twin Trip	4 Access Control	4 Reserved
5 Delay 1	**5** Bypass	**5** Dialer Delay	5 Reserved	5 Reserved
6 Delay 2	6 Group Bypass	**6** Siren / Comm	6 Reserved	6 Reserved
7 Reserved	**7** Force Arm	**7** Restore	7 Reserved	7 Reserved
8 Local only	8 Partial Mode	**8** Reserved	8 Reserved	8 Reserved

Feat. 103 — Configuration Group 19 - Alarm Event Code — Pg 50

3

Feat. 104 — Configuration Group 19 - Characteristic Select — Pg 50

Segment 1	Segment 2	Segment 3	Segment 4	Segment 5
1 Fire	1 Code pad beep	1 Reserved	1 Zone Activity	1 Reserved
2 24 hour	**2** Yelping siren	**2** DEOL Tamper	2 Resistor Defeat	2 Reserved
3 Key-switch	3 Steady siren	3 Trouble	3 Request to Exit	3 Reserved
4 Follower	4 Chime	4 Twin Trip	4 Access Control	4 Reserved
5 Delay 1	**5** Bypass	**5** Dialer Delay	5 Reserved	5 Reserved
6 Delay 2	**6** Group Bypass	**6** Siren / Comm	6 Reserved	6 Reserved
7 Reserved	7 Force Arm	**7** Restore	7 Reserved	7 Reserved
8 Local only	8 Partial Mode	**8** Reserved	8 Reserved	8 Reserved

Feat. 105 — Configuration Group 20 - Alarm Event Code — Pg 51

3

Feat. 106 — Configuration Group 20 - Characteristic Select — Pg 51

Segment 1	Segment 2	Segment 3	Segment 4	Segment 5
1 Fire	1 Code pad beep	1 Reserved	1 Zone Activity	1 Reserved
2 24 hour	**2** Yelping siren	**2** DEOL Tamper	2 Resistor Defeat	2 Reserved
3 Key-switch	3 Steady siren	3 Trouble	3 Request to Exit	3 Reserved
4 Follower	**4** Chime	4 Twin Trip	4 Access Control	4 Reserved
5 Delay 1	**5** Bypass	**5** Dialer Delay	5 Reserved	5 Reserved
6 Delay 2	6 Group Bypass	**6** Siren / Comm	6 Reserved	6 Reserved
7 Reserved	7 Force Arm	**7** Restore	7 Reserved	7 Reserved
8 Local only	**8** Partial Mode	**8** Reserved	8 Reserved	8 Reserved

Feat. 119 — Zone 49-56 Configuration Groups — Pg 51

16 16 16 16 16 16 16 16

Feat. 120 — Zone 49-56 Area Selection — Pg 51

	Segment 1 (Zone 49)	Segment 2 (Zone 50)	Segment 3 (Zone 51)	Segment 4 (Zone 52)	Segment 5 (Zone 53)	Segment 6 (Zone 54)	Segment 7 (Zone 55)	Segment 8 (Zone 56)
Area 1	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
Area 2	2	2	2	2	2	2	2	2
Area 3	3	3	3	3	3	3	3	3
Area 4	4	4	4	4	4	4	4	4
Area 5	5	5	5	5	5	5	5	5
Area 6	6	6	6	6	6	6	6	6
Area 7	7	7	7	7	7	7	7	7
Area 8	8	8	8	8	8	8	8	8

Feat. 121 — Zone 57-64 Configuration Groups — Pg 51

16	16	16	16	16	16	16	16

Feat. 122 — Zone 57-64 Area Selection — Pg 51

	Segment 1 (Zone 57)	Segment 2 (Zone 58)	Segment 3 (Zone 59)	Segment 4 (Zone 60)	Segment 5 (Zone 61)	Segment 6 (Zone 62)	Segment 7 (Zone 63)	Segment 8 (Zone 64)
Area 1	1	1	1	1	1	1	1	1
Area 2	2	2	2	2	2	2	2	2
Area 3	3	3	3	3	3	3	3	3
Area 4	4	4	4	4	4	4	4	4
Area 5	5	5	5	5	5	5	5	5
Area 6	6	6	6	6	6	6	6	6
Area 7	7	7	7	7	7	7	7	7
Area 8	8	8	8	8	8	8	8	8

Feat. 123 — Zone 65-72 Configuration Groups — Pg 51

16	16	16	16	16	16	16	16

Feat. 124 — Zone 65-72 Area Selection — Pg 51

	Segment 1 (Zone 65)	Segment 2 (Zone 66)	Segment 3 (Zone 67)	Segment 4 (Zone 68)	Segment 5 (Zone 69)	Segment 6 (Zone 70)	Segment 7 (Zone 71)	Segment 8 (Zone 72)
Area 1	1	1	1	1	1	1	1	1
Area 2	2	2	2	2	2	2	2	2
Area 3	3	3	3	3	3	3	3	3
Area 4	4	4	4	4	4	4	4	4
Area 5	5	5	5	5	5	5	5	5
Area 6	6	6	6	6	6	6	6	6
Area 7	7	7	7	7	7	7	7	7
Area 8	8	8	8	8	8	8	8	8

Feat. 125 — Zone 73-80 Configuration Groups — Pg 52

16	16	16	16	16	16	16	16

Feat. 126 — Zone 73-80 Area Selection — Pg 52

	Segment 1 (Zone 73)	Segment 2 (Zone 74)	Segment 3 (Zone 75)	Segment 4 (Zone 76)	Segment 5 (Zone 77)	Segment 6 (Zone 78)	Segment 7 (Zone 79)	Segment 8 (Zone 80)
Area 1	1	1	1	1	1	1	1	1
Area 2	2	2	2	2	2	2	2	2
Area 3	3	3	3	3	3	3	3	3
Area 4	4	4	4	4	4	4	4	4
Area 5	5	5	5	5	5	5	5	5
Area 6	6	6	6	6	6	6	6	6
Area 7	7	7	7	7	7	7	7	7
Area 8	8	8	8	8	8	8	8	8

Feat. 127 — Zone 81-88 Configuration Groups — Pg 52

16	16	16	16	16	16	16	16

Feat. 128 — Zone 81-88 Area Selection — Pg 52

	Segment 1 (Zone 81)	Segment 2 (Zone 82)	Segment 3 (Zone 83)	Segment 4 (Zone 84)	Segment 5 (Zone 85)	Segment 6 (Zone 86)	Segment 7 (Zone 87)	Segment 8 (Zone 88)
Area 1	1	1	1	1	1	1	1	1
Area 2	2	2	2	2	2	2	2	2
Area 3	3	3	3	3	3	3	3	3
Area 4	4	4	4	4	4	4	4	4
Area 5	5	5	5	5	5	5	5	5
Area 6	6	6	6	6	6	6	6	6
Area 7	7	7	7	7	7	7	7	7
Area 8	8	8	8	8	8	8	8	8

Feat. 129 — Zone 89-96 Configuration Groups — Pg 52

16	16	16	16	16	16	16	16

Feat. 130 — Zone 89-96 Area Selection — Pg 52

	Segment 1 (Zone 89)	Segment 2 (Zone 90)	Segment 3 (Zone 91)	Segment 4 (Zone 92)	Segment 5 (Zone 93)	Segment 6 (Zone 94)	Segment 7 (Zone 95)	Segment 8 (Zone 96)
Area 1	1	1	1	1	1	1	1	1
Area 2	2	2	2	2	2	2	2	2
Area 3	3	3	3	3	3	3	3	3
Area 4	4	4	4	4	4	4	4	4
Area 5	5	5	5	5	5	5	5	5
Area 6	6	6	6	6	6	6	6	6
Area 7	7	7	7	7	7	7	7	7
Area 8	8	8	8	8	8	8	8	8

Feat. 131 — Zone 97-104 Configuration Groups — Pg 52

16	16	16	16	16	16	16	16

Feat. 132 — Zone 97-104 Area Selection — Pg 52

	Segment 1 (Zone 97)	Segment 2 (Zone 98)	Segment 3 (Zone 99)	Segment 4 (Zone 100)	Segment 5 (Zone 101)	Segment 6 (Zone 102)	Segment 7 (Zone 103)	Segment 8 (Zone 104)
Area 1	1	1	1	1	1	1	1	1
Area 2	2	2	2	2	2	2	2	2
Area 3	3	3	3	3	3	3	3	3
Area 4	4	4	4	4	4	4	4	4
Area 5	5	5	5	5	5	5	5	5
Area 6	6	6	6	6	6	6	6	6
Area 7	7	7	7	7	7	7	7	7
Area 8	8	8	8	8	8	8	8	8

Feat. 133 — Zone 105-112 Configuration Groups — Pg 53

16	16	16	16	16	16	16	16

Feat. 134 — Zone 105-112 Area Selection — Pg 53

	Segment 1 (Zone 105)	Segment 2 (Zone 106)	Segment 3 (Zone 107)	Segment 4 (Zone 108)	Segment 5 (Zone 109)	Segment 6 (Zone 110)	Segment 7 (Zone 111)	Segment 8 (Zone 112)
Area 1	1	1	1	1	1	1	1	1
Area 2	2	2	2	2	2	2	2	2
Area 3	3	3	3	3	3	3	3	3
Area 4	4	4	4	4	4	4	4	4
Area 5	5	5	5	5	5	5	5	5
Area 6	6	6	6	6	6	6	6	6
Area 7	7	7	7	7	7	7	7	7
Area 8	8	8	8	8	8	8	8	8

Feat. 135 — Zone 113-120 Configuration Groups — Pg 53

16	16	16	16	16	16	16	16

Feat. 136 — Zone 113-120 Area Selection — Pg 53

	Segment 1 (Zone 113)	Segment 2 (Zone 114)	Segment 3 (Zone 115)	Segment 4 (Zone 116)	Segment 5 (Zone 117)	Segment 6 (Zone 118)	Segment 7 (Zone 119)	Segment 8 (Zone 120)
Area 1	1	1	1	1	1	1	1	1
Area 2	2	2	2	2	2	2	2	2
Area 3	3	3	3	3	3	3	3	3
Area 4	4	4	4	4	4	4	4	4
Area 5	5	5	5	5	5	5	5	5
Area 6	6	6	6	6	6	6	6	6
Area 7	7	7	7	7	7	7	7	7
Area 8	8	8	8	8	8	8	8	8

Feat. 137 — Zone 121-128 Configuration Groups — Pg 53

16	16	16	16	16	16	16	16

Feat. 138 — Zone 121-128 Area Selection — Pg 53

	Segment 1 (Zone 121)	Segment 2 (Zone 122)	Segment 3 (Zone 123)	Segment 4 (Zone 124)	Segment 5 (Zone 125)	Segment 6 (Zone 126)	Segment 7 (Zone 127)	Segment 8 (Zone 128)
Area 1	1	1	1	1	1	1	1	1
Area 2	2	2	2	2	2	2	2	2
Area 3	3	3	3	3	3	3	3	3
Area 4	4	4	4	4	4	4	4	4
Area 5	5	5	5	5	5	5	5	5
Area 6	6	6	6	6	6	6	6	6
Area 7	7	7	7	7	7	7	7	7
Area 8	8	8	8	8	8	8	8	8

Feat. 155 — Days of the Week for Auto Disarm Areas 1-8 — Pg 54

Segment 1 (Area 1)	Segment 2 (Area 2)	Segment 3 (Area 3)	Segment 4 (Area 4)	Segment 5 (Area 5)	Segment 6 (Area 6)	Segment 7 (Area 7)	Segment 8 (Area 8)
1 Sun	1 Sun	1 Sun	1 Sun	1 Sun	1 Sun	1 Sun	1 Sun
2 Mon	2 Mon	2 Mon	2 Mon	2 Mon	2 Mon	2 Mon	2 Mon
3 Tue	3 Tue	3 Tue	3 Tue	3 Tue	3 Tue	3 Tue	3 Tue
4 Wed	4 Wed	4 Wed	4 Wed	4 Wed	4 Wed	4 Wed	4 Wed
5 Thur	5 Thur	5 Thur	5 Thur	5 Thur	5 Thur	5 Thur	5 Thur
6 Fri	6 Fri	6 Fri	6 Fri	6 Fri	6 Fri	6 Fri	6 Fri
7 Sat	7 Sat	7 Sat	7 Sat	7 Sat	7 Sat	7 Sat	7 Sat
8 Reserved	8 Reserved	8 Reserved	8 Reserved	8 Reserved	8 Reserved	8 Reserved	8 Reserved

Feat. 162 — EOL Resistor Value Select — Pg 54

Segment 1 — 0

0=3k3, 1=1k5, 2=2k2, 3=3k9, 4=4k7, 5=5k6, 6=6k8

Notes

Notes

Notes

Notes

Hills Reliance Specifications

Operating Power	16.5 VAC 25, 40, or 50 VA Transformer
Auxiliary Power	
W/ 25 VA Transformer	12 VDC Regulated 500 mA
W/ 40 or 50 VA Transformer	12 VDC Regulated 1 Amp
W/ NX-320 Power Supply	12 VDC Regulated 3.5 Amps
Loop Resistance	
Standard Loop	300 Ohms Maximum
2-Wire Smokes	30 Ohms Maximum
4-Wire Smokes	300 Ohms Maximum
Loop Response	500mS
Built-in Siren Driver	3-tone (Steady, Yelp, Evacuation)
Operating Temperature	0 to 48 degrees C
LED Code Pad Dimensions	16.25cm Wide 10.15cm High 2.8cm Deep
LCD Code Pad Dimensions	16.25cm Wide 13.45cm High 2.50cm Deep
Metal Enclosure Dimension	28.60cm Wide 28.60cm High 8.90cm Deep
Shipping Weight	4 kg
	N4131

Warranty Statement

Hills Industries guarantees this product against defective parts and workmanship for twenty-four (24) months from date of purchase. If any defect appears during the warranty period return it to place of purchase. Hills Industries assumes no liability for consequential or indirect damage and accepts no responsibility for repairing damage to the product caused by misuse, careless handling, or where repairs have been made by others.

No other guarantee, written or verbal, is authorized by or on behalf of Hills Industries.

Hills Industries
12 Wiggs Rd Riverwood
NSW 2210 Australia
Phone (02) 9717 5222

Quick Start Guide

Short form programming sheet for a monitored system
This is not a substitute for reading the manual

1.	**Hard Default Panel**	Unplug battery & remove power, turn on power, Enter 971300 within 10 seconds, Wait 12 seconds **Repeat**
2.	Go To Program Mode	*8 9713 0#
3.	**Soft Default Panel**	910#, Exit, Exit, [Chime], wait 12 seconds
4.	Go To Program Mode	*8 9713 0#
5.	Change Program Code	1# n*n*n*n* #
6.	Duress Code	3# n*n*n*n* #
7.	Receiver Phone #1	4# n*n*n*n*n*n*n*n* #
8.	System Account Code	5# n*n*n*n* #
9.	Communication Format	6# 1* *(1 for CID, or 3 for Domestic Dial)*
10.	Receiver Phone #2	7# n*n*n*n*n*n*n*n* #
11.	Report Event Summary	9# 3 7 *# *(for open/close, tamper/restore)*
12.	Phone Cut Delay	11# n*
13.	Download Access Code	12# n*n*n*n*n*n*n*n*
14.	Download Control (Remote Access)	14# 1* *(to enable two call AMD)*
15.	Force Arm Globally	16# 3*#
16.	Entry/Exit Time #1 & #2	17# nn*nn*nn*nn* #
17.	Configuration Groups (Zone Types)	18# *(zones 1-8)*, 20# *(zones 9-16)*, 59# *(zones 17-24)*, 61# *(zones 25-32)*, 63# *(zones 33-40)*, 65# *(zones 41-48)*, 119# *(zones 49-56)*, 121# *(zones 57-64)*
18.	System Options	22# 7*7* # *(for siren on tamper and [*][44] manual communicator test enable)*
19.	Medical Alarm Sounder “ON”	24# 7* *(enable code pad beeping)*
20.	Auto Test Control	32# *(see Feature 32 for details)*
21.	Exit Program Mode	Press Exit, Exit, [Chime] wait 12 seconds
22.	Change Master Code (default 1234)	[*5] [Master Code] [01] [New Code] #
23.	Program User Codes	[*5] [Master Code] [User] [User Code] #
24.	Set Date & Time (at User Level)	
	Set System Calendar	[*][9][6] [Master Code] [Day of Week] [Month] [Day of Month] [Year]
	Set System Clock	[*][9][7] [Master Code] [Hour] [Minutes]
25.	Walk Test	* [Chime] [Master Code]
	End Walk Test	[Master Code]
26.	**Train Client/End User**	

Note if testing reporting, master code does not send open/closing reports by default (see Feature 2)